City of
SACRAMENTO

COMMUNITY DEVELOPMENT
DEPARTMENT

ENVIRONMENTAL PLANNING
SERVICES

300 Richards Boulevard
Third Floor
Sacramento, CA 95811

MITIGATED NEGATIVE DECLARATION

The City of Sacramento, California, a municipal corporation, does hereby prepare, declare, and publish this Mitigated Negative Declaration for the following described project:

Dry Creek Estates (P20-040) The proposed project would include construction of approximately 135 single-family homes, associated utilities service connections, and multiple private roads on the undeveloped site. In addition, as part of the development project, a maintenance district may be formed to maintain a segment of the Sacramento Northern Bike Trail. The project entitlements include a request for a Rezone of two parcels from Agriculture (A) to Single-Unit or Duplex Dwelling (R-1A); and a Tentative Subdivision Map to subdivide 29.56 gross acres into 135 residential lots and 3 open space/detention parcels.

The Lead Agency is the City of Sacramento. The City of Sacramento, Community Development Department, has reviewed the proposed project and, on the basis of the whole record before it, has determined that there is no substantial evidence that the project, as identified in the attached Initial Study, will have a significant effect on the environment. This Mitigated Negative Declaration reflects the lead agency's independent judgment and analysis. An Environmental Impact Report is not required pursuant to the Environmental Quality Act of 1970 (Sections 21000, et seq., Public Resources Code of the State of California).

This Mitigated Negative Declaration has been prepared pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 et seq.), CEQA Guidelines (Title 14, Sections 15000 et seq. of the California Code of Regulations), the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento, and the Sacramento City Code.

A copy of this document and all supportive is available on the City's EIR Webpage at:
http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports

Environmental Services Manager, City of Sacramento,
California, a municipal corporation

By: Ron Bess

Date: July 11, 2022

City of
SACRAMENTO

DRY CREEK ESTATES PROJECT [(P20-040)]

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION FOR ANTICIPATED SUBSEQUENT PROJECTS UNDER THE 2035 GENERAL PLAN MASTER EIR

This Initial Study has been prepared by the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15000 *et seq.* of the California Code of Regulations) and the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento.

ORGANIZATION OF THE INITIAL STUDY

This Initial Study is organized into the following sections:

SECTION I - BACKGROUND: Provides summary background information about the project name, location, sponsor, and the date this Initial Study was completed.

SECTION II - PROJECT DESCRIPTION: Includes a detailed description of the proposed project.

SECTION III - ENVIRONMENTAL CHECKLIST AND DISCUSSION: Reviews proposed project and states whether the project would have additional significant environmental effects (project-specific effects) that were not evaluated in the Master EIR for the 2035 General Plan.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Identifies which environmental factors were determined to have additional significant environmental effects.

SECTION V - DETERMINATION: States whether environmental effects associated with development of the proposed project are significant, and what, if any, added environmental documentation may be required.

REFERENCES CITED: Identifies source materials that have been consulted in the preparation of the Initial Study.

APPENDIX A: Air Quality Emissions Model – CalEEMod.2016.3.1

APPENDIX B: Biological Resources Technical Report.

APPENDIX C: Noise Study Report

APPENDIX D: Vehicle Miles Traveled Memorandum

SECTION I - BACKGROUND

Project Name and File Number: Dry Creek Estates (P20-040)

Project Location: 853 Main Ave. & 901 Main Ave.
Sacramento, CA 95838

Project Applicant: The True Life Companies
110 Blue Ravine Rd. #209
Folsom, CA 95630

Project Planner: Jose Quintanilla, Associate Planner
(916) 808-5879
jquintanilla@cityofsacramento.org

Environmental Planner: Scott Johnson, Senior Planner
(916) 808-5842
srjohnson@cityofsacramento.org

Date Initial Study Completed: July 15, 2022

This Initial Study was prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 1500 *et seq*.). The Lead Agency is the City of Sacramento.

The City of Sacramento (City), Community Development Department, has reviewed the proposed project and, on the basis of the whole record before it, has determined that the proposed project is an anticipated subsequent project identified and described in the 2035 General Plan Master EIR and is consistent with the land use designation and the permissible densities and intensities of use for the project site as set forth in the 2035 General Plan. See CEQA Guidelines Section 15176 (b) and (d).

The City has prepared the attached Initial Study to review the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the 2035 General Plan Master EIR to determine their adequacy for the project (see CEQA Guidelines Section 15178(b),(c)) and identify any potential new or additional project-specific significant environmental effects that were not analyzed in the Master EIR and any mitigation measures or alternatives that may avoid or mitigate the identified effects to a level of insignificance, if any.

As part of the Master EIR process, the City is required to incorporate all feasible mitigation measures or feasible alternatives appropriate to the project as set forth in the Master EIR (CEQA Guidelines Section 15177(d)) Policies included in the 2035 General Plan that reduce significant impacts identified in the Master EIR are identified and discussed. See also the Master EIR for the 2035 General Plan. The mitigation monitoring plan for the 2035 General Plan, which provides references to applicable General Plan policies that reduce the environmental effects of development that may occur consistent with the General Plan, is included in the adopting resolution for the Master EIR. See City Council Resolution No. 2015-0060, beginning on page 60. The resolution is available at

http://portal.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.aspx.

This analysis incorporates by reference the general discussion portions of the 2035 General Plan Master EIR. (CEQA Guidelines Section 15150(a)). The Master EIR is available for public review at the City of Sacramento's web site at:

http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.aspx

The City is soliciting views of interested persons and agencies on the content of the environmental information presented in this document. Written comments should be sent at the earliest possible date, but no later than the 30-day review period ending August 15, 2022.

Please send written responses to:

Scott Johnson, Senior Planner
Community Development Department
City of Sacramento
300 Richards Blvd, 3rd Floor
Sacramento, CA 95811
Direct Line: (916) 808-5842
srjohnson@cityofsacramento.org

SECTION II - PROJECT DESCRIPTION

INTRODUCTION

The True Life Companies (TTLC) proposes to construct approximately 135 single-family homes, associated utilities service connections, and multiple local roadways on undeveloped land in the Robla Neighborhood of North Sacramento as part of the Dry Creek Estates project (project). Additionally, the project proposes a roadway gap closure that would connect Main Avenue with a roadway north of the project area. The residential community would be located on approximately 30 acres.

PROJECT LOCATION

The project is located primarily on two vacant parcels totaling 28.78 acres in size (APNs 237-0051-012 & 237-0051-013) in the Robla Neighborhood of North Sacramento. The parcels are located on the east side of Rio Linda Boulevard south of the Main Avenue intersection and bordered by Futures High School to the south and Sunset Lawn Funeral Home and Cemetery to the east (Figure 1. Project Location). In addition, the project proposes an extension of Main Avenue that would require construction on the parcels located directly north of the residential developments (APNs 226-0250-005, 226-0260-017, and 226-0260-018).

The project site is located within the North Sacramento Community Plan Area. The 2035 General Plan identifies the land use designation within the project area as Suburban Neighborhood, Low Density and Parks and Recreation. The entire project area is currently undeveloped vacant land.

Surrounding land uses include single-family homes to the west and north, a cemetery to the east, and a high school to the south. Rio Linda Boulevard, an arterial roadway, and the Sacramento Northern Bike Trail border the western edge of the project area (Figure 2. Land Use and Zoning).

PROJECT DESCRIPTION

The City of Sacramento is evaluating the environmental impact of rezoning the project area and allowing for residential development. The proposed project would include construction of approximately 135 single-family homes, associated utilities service connections, and multiple local roadways on the undeveloped site. In addition, as part of the development project, a maintenance district may be formed to maintain a segment of the Sacramento Northern Bike Trail. A discussion of the project components, including residential units, site access and circulation, utility infrastructure, open space preservation, and the maintenance district are discussed in greater detail below.

Residential Units

The proposed project would build approximately 135 single-family homes on the property. Lot sizes range between approximately 5,000 ft^2 and 3,800 ft^2 with a total density of 4.70 dwelling units per acre. Homes will be built in two clusters on either side of the wetland open space corridor with 74 homes on the north side of the open space and 61 on the south side of the open space (Figure 3. Site Plan).

Site Access and Circulation

The project area is bordered by Rio Linda Boulevard on the west side and Grace Avenue on the South Side. As a component of this project, Main Avenue will be extended by approximately 1,100 feet along the north side of the project area from its current terminus at Rio Linda Boulevard at the northwestern corner of the project area to the existing section of Main Avenue at the northeastern corner of the project area. This roadway gap closure would involve building a bridge over Magpie Creek just east of Rio Linda Boulevard, reconfiguring the existing intersection, and paving approximately 1,100 linear feet of two-lane roadway.

Roadway access to individual properties within the development will be provided by a network of new private roads. The large roads will be 38 feet wide, accommodating two travel lanes, curb, gutter, sidewalk,

and limited on street parking in designated parking locations throughout the development. Small streets will be 21 feet wide and will primarily provide access between residential units south of the wetland swale.

Utility Infrastructure

The development will connect to existing water, power, sewer, and storm drain utility infrastructure provided by the City, County, and the Sacramento Municipal Utility District. The number of new homes is not anticipated to require an expansion of the utility grid. Local distribution lines will be placed underneath the new local roadways.

Water

Municipal water will be supplied by the City of Sacramento Department of Utilities. The City uses surface water from the American and Sacramento rivers as well as groundwater north of the American River to meet the City's water needs. The project would connect to existing water mains along Rio Linda Boulevard and Grace Avenue. The local distribution network will be constructed in accordance with the City of Sacramento Development Standards.

Sewer

Sewer services will be supplied by the City of Sacramento Department of Utilities and is within the G302 sewer basin. Sewer connections and new sewer infrastructure within the project area will operate under gravity flow conditions as outlined in the City's design standards and guidelines for new developments.

Stormwater

The project will connect to existing stormwater drainage infrastructure operated by the City of Sacramento Department of Utilities. The project is within Drainage Basin 157 which drains to the Natomas East Main Drainage Canal, and eventually the American River.

In addition, the ground elevation on the north side of the project is below the Magpie Creek local 100-year flood elevation. To raise future homes above the 100-year floodplain, approximately 25,000 cubic yards of clean fill will be imported to the site to build up housing pads on the north side of the project.

Open Space Preservation

The Project Area is diagonally bisected by a wetland swale. The swale is not a jurisdictional water of the United States but does provide some habitat for local wildlife and scenic value to the property and it will not be developed. The project will preserve this feature as an open space corridor separating the housing development into two halves. The area is currently open grassland with no shrub or tree cover.

Parking spaces will be provided to allow for easy resident access to the open space area.

Public Facilities and Improvements Maintenance District

As a component of this project, the land developer will initiate and complete formation of a maintenance district or annex the project into an existing maintenance district to fund maintenance and repairs of public facilities and improvements. This maintenance district would levy fees or property taxes to fund maintenance activities in perpetuity. The district will fund maintenance of a segment of the Sacramento Northern Bike Trail on the west side of the project, two new residential parks, and the open space corridor.

Figures and Maps

Figure 1 - Project Location
Figure 2 - Land Use and Zoning
Figure 3 - Site Plan

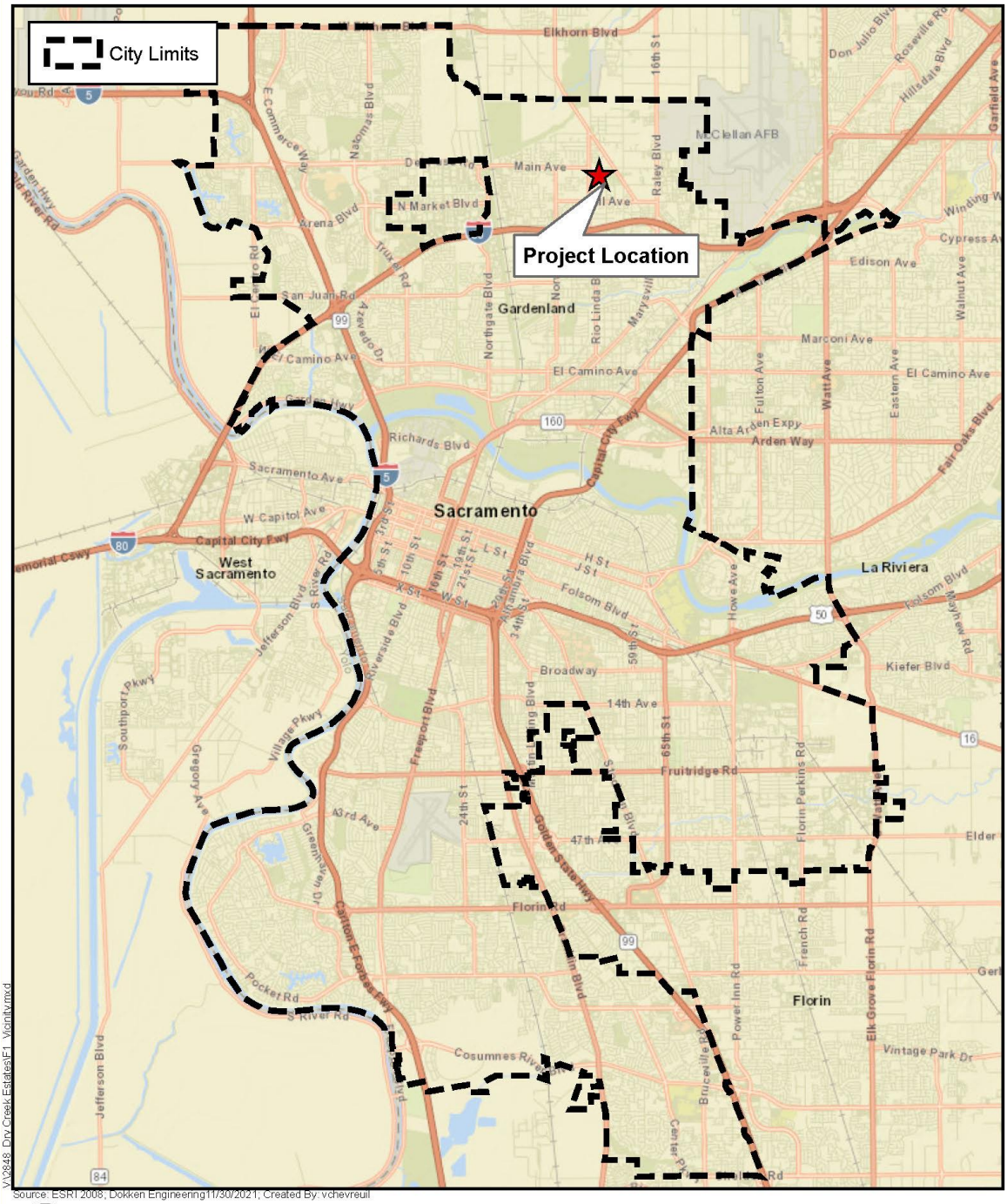

FIGURE 1
Project Vicinity

Dry Creek Estates Project
Sacramento County, California

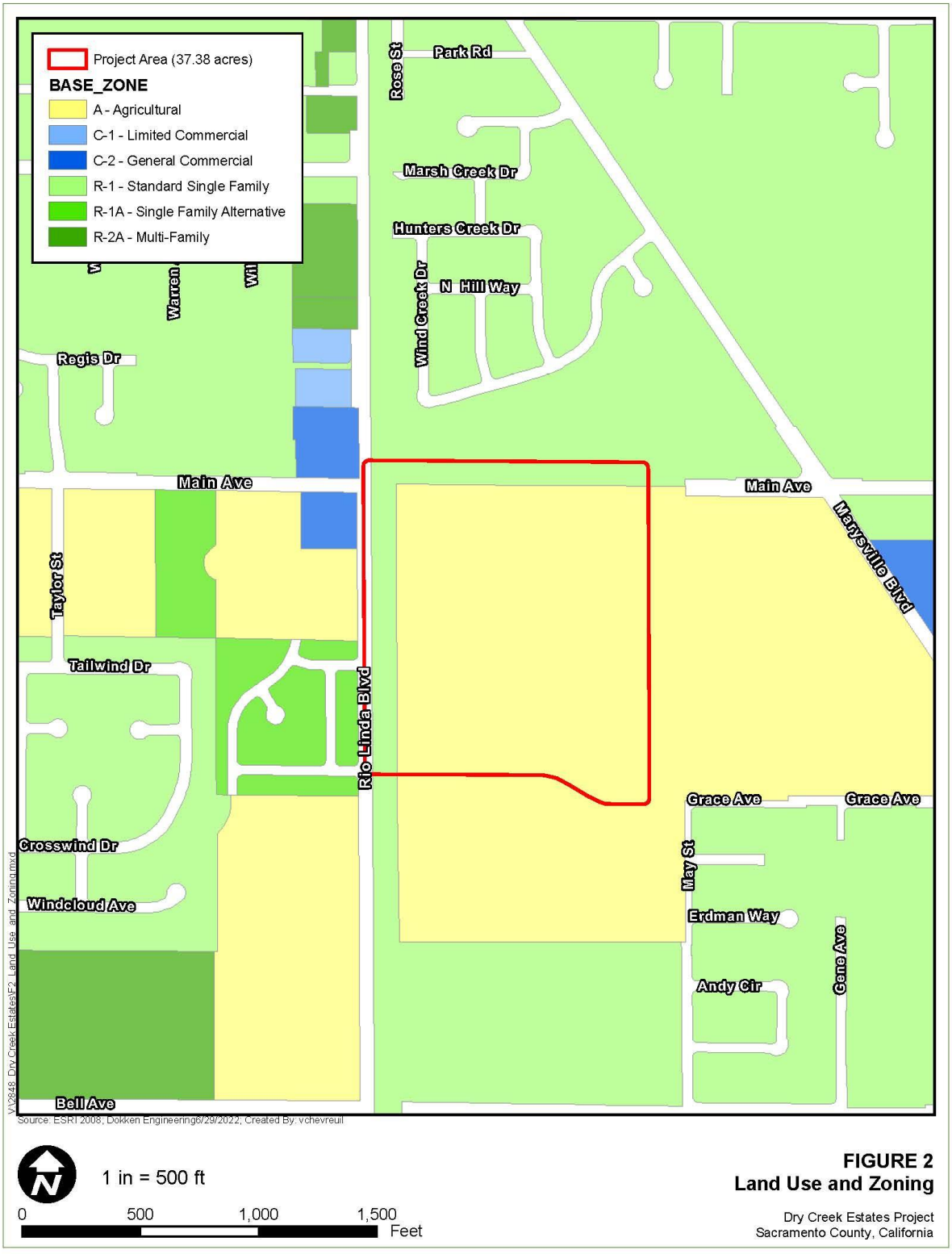

FIGURE 2
Land Use and Zoning

Dry Creek Estates Project
Sacramento County, California


APN 226-0250-005
MAIN AVENUE
APN 226-0260-018
APN 226-0260-017
RIO LINDA BOULEVARD
GRACE AVENUE
APN 237-0051-010
PARK 1.5 ACRES
PARK 0.5 ACRE
W/R
55'x90'
74 LOTS
45'x85'
61 LOTS
SITE
VICINITY MAP
21' R/W
20' P/C-P/C
PRIVATE STREET (No SIDEWALK)
PRIVATE STREET (W/ SIDEWALKS)
* NOTE: TREE LOCATIONS ASSUMED TO BE 2' BEHIND CONCRETE OR CENTERED IN THE PLANTER STRIP
DRY CREEK ESTATES
CONCEPTUAL SITE PLAN
CITY OF SACRAMENTO SACRAMENTO COUNTY CALIFORNIA
SCALE: 1" = 50' DATE: JUNE 17, 2022
cbg
CIVIL ENGINEERS • SURVEYORS • PLANNERS

SECTION III – ENVIRONMENTAL CHECKLIST AND DISCUSSION

LAND USE, POPULATION AND HOUSING, AGRICULTURAL RESOURCES

Introduction

The California Environmental Quality Act (CEQA) requires the Lead Agency to examine the effects of a project on the physical conditions that exist within the area that would be affected by the project. CEQA also requires a discussion of any inconsistency between the proposed project and applicable General Plans and regional plans.

An inconsistency between the proposed project and an adopted plan for land use development in a community would not constitute a physical change in the environment. When a project diverges from an adopted plan, however, it may affect planning in the community regarding infrastructure and services, and the new demands generated by the project may result in later physical changes in response to the project.

In the same manner, the fact that a project brings new people or demand for housing to a community does not, by itself, change the physical conditions. An increase in population may, however, generate changes in retail demand or demand for governmental services, and the demand for housing may generate new activity in residential development. Physical environmental impacts that could result from implementing the proposed project are discussed in the appropriate technical sections.

This section of the initial study identifies the applicable land use designations, plans and policies, and permissible densities and intensities of use, and discusses any inconsistencies between these plans and the proposed project. This section also discusses agricultural resources and the effect of the project on these resources.

Discussion

Land Use

The project site has been designated as a “Suburban Neighborhood Low” and “Parks and Recreation” in the 2035 General Plan and is zoned A - Agriculture.

The project site is located in an urbanized portion of the community. Adjacent parcels include residential communities, public parks, and local suburban centers. Recent local development includes the realignment of the Main Avenue/Rio Linda Boulevard intersection, the construction of Futures High School directly south of the project area, and the connection of Grace Avenue to Rio Linda Boulevard. Additionally, the project is located in the vicinity of a large low-rise employment center located to the east. Development of the project site as proposed would alter the existing landscape, but the project site has been designated for urban development in the 2035 General Plan and the Planning and Development Code, and the proposed development is consistent with these planning designations.

As outlined in the Sacramento City Code Title 17.200 of the Planning and Development Code Division II Zoning Districts and Land Use Regulations, minimum parcel size for A zone land is 5 acres. As part of this project, TTLC is working with the City to rezone the development area as R-1A which specifies a minimum lot size of 2,900 square feet per dwelling unit.

The proposed project is consistent with R-1A land use designations following rezoning. The project would increase housing opportunities in a growing area and is consistent with the neighborhood character of the surrounding residential developments. The project does not impact the City’s land use and planning objectives.

Population and Housing

The proposed project would include the construction of approximately 135 single-family homes on a previously undeveloped lot. Consequently, development would add to the population in the City. However, as previously mentioned, the proposed project is consistent with the General Plan land use and zoning designations. As such, impacts related to population and housing associated with buildout of the project site would have been analyzed as part of the Master EIR analysis. As a result, the project would not be considered to induce population beyond what was previously analyzed in the Master EIR. Implementation of the proposed project would not displace any existing housing units or people. Construction or replacement of housing elsewhere would not be required for the project.

Agricultural Resources

The Master EIR discussed the potential impact of development under the 2035 General Plan on agricultural resources. See Master EIR, Chapter 4.1. In addition to evaluating the effect of the General Plan on sites within the City, the Master EIR noted that to the extent the 2035 General Plan accommodates future growth within the City limits, the conversion of farmland outside the City limits is minimized. The Master EIR concluded that the impact of the 2035 General Plan on agricultural resources within the City was less than significant.

The project site and its proposed Main Avenue extension contain approximately 4.5 acres of San Joaquin silt loam, which is a soil categorized as Farmland of Statewide Importance (NRCS 2010). However, the Department of Conservation identifies the project area as being within Urban and Built-up Land; therefore, despite the presence of suitable soil, the site is not identified as an Important Farmland (DOC 2021). The site is zoned for agricultural uses but has not been actively farmed for several decades. In addition, future farming is unlikely to be economically feasible on the property due to the relatively small lot size and considering that most of the surrounding farmland in the Robla neighborhood has already been converted to urban uses and supporting infrastructure is not present. There are no Williamson Act contracts that affect the project site. No existing agricultural or timber-harvest uses are located on or in the vicinity of the project site. Development of the site would result in no impacts on agricultural resources.

Wildfire

The Master EIR does not identify any significant impacts related to wildfire risk. Per the CAL FIRE Fire and Resources Assessment Program (FRAP), the City of Sacramento is located within a Local Responsibility Area (LRA). The City is not located within or adjacent to a State Responsibility Area (SRA) or a designated Very High Fire Hazard Severity Zone (VHFHSZ). Furthermore, the project site is located within a developed area where a substantial wildland-urban interface does not exist. Thus, the risk of wildfire at the project site is minimal. Based on the above, the proposed project would not create a substantial fire risk for existing development in the project vicinity.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
1. AESTHETICS Would the proposal: A) Create a source of glare that would cause a public hazard or annoyance?			X
B) Create a new source of light that would be cast onto oncoming traffic or residential uses?			X
C) Substantially degrade the existing visual character of the site or its surroundings?			X

ENVIRONMENTAL SETTING

The project is in the Robla neighborhood of North Sacramento, directly east of the recently renovated intersection between Main Avenue and Rio Linda Boulevard (Figure 1). Land use in the vicinity of the project area is characterized as low-density suburban neighborhood featuring single and multi-unit housing developments. Low rise employment centers are concentrated past Marysville Boulevard to the east. Local topography is relatively flat.

The 30-acre project site is bordered by two public facilities – a cemetery to the east and the Sacramento Northern Bike Trail to the west. The Sacramento Northern Bike Trail is a 10 mile moderately trafficked trail that runs from Downtown Sacramento through North Sacramento, where it passes adjacent to the project site. Additionally, the project is bordered on its southern edge by Futures High School, which finished construction in 2018. Existing conditions include sidewalks and streetlamps along Rio Linda Boulevard to the west and Grace Avenue to the south; trees along the Sacramento Northern Bike Trail and in proximity to Magpie Creek; and residential developments located to the north and west of the project site. Public views of the project site include views from motorists, bicyclists, and pedestrians travelling on Rio Linda Boulevard and Grace Avenue, students and faculty attending Futures High School, and from bicyclists and pedestrians traveling along the Sacramento Northern Bike Trail.

The project site does not contain any scenic resources and is not contained within an area designated as a scenic resource or vista. Additionally, no scenic roadways are within or adjacent to the project site.

STANDARDS OF SIGNIFICANCE

The significance criteria used to evaluate the project impacts to aesthetics are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines, thresholds of significance adopted by the City in applicable General Plans and previous environmental documents, and professional judgment. A significant impact related to aesthetics would occur if the project would:

- substantially interfere with an important scenic resource or substantially degrade the view of an existing scenic resource; or

- create a new source of substantial light or glare that is substantially greater than typical urban sources and could cause sustained annoyance or hazard for nearby sensitive receptors.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR described the existing visual conditions in the General Plan City of Sacramento, and the potential changes to those conditions that could result from development consistent with the 2035 General Plan. See Master EIR, Chapter 4.13, Visual Resources.

The Master EIR identified potential impacts for light and glare (Impact 4.13-1) and concluded that impacts would be less than significant.

ANSWERS TO CHECKLIST QUESTIONS - AESTHETICS

A. Would the project create a source of glare that would cause a public hazard or annoyance?

No additional significant environmental effect. The project is located in a low-density suburban setting that includes existing streetlamps and residential community lighting. The proposed project includes the installation of landscape lighting along roadways and in parking lots within the residential complex. These lights will be directional and shielded, which would minimize the effects of glare to a less-than-significant impact. Additionally, the potential new sources of light associated with the development and operation of the proposed project would be similar to adjacent residential uses. As such, the project is not anticipated to result in significant disturbance to adjacent residential complexes or facilities.

B. Would the project create a new source of light that would be cast onto oncoming traffic or residential uses?

No additional significant environmental effect. The project is anticipated to install new light fixtures along the street network and within parking facilities located within the proposed residential community. The proposed project would be required to comply with the lighting policies outlined in the General Plan, including the use of directional lighting (Policy ER 7.1.3) as well as specific glass requirements (Policy ER 7.1.4). project-related landscape lighting would be directional and shielded to reduce impacts to adjacent roadways and facilities. Additionally, shielding would prevent excessive light pollution resulting from the construction of the project.

Although the project proposes the introduction of new sources of light and glare to the project site, the type and intensity of the resulting light and glare would be comparable to that of the surrounding residential developments and would be consistent with the existing plan use. Due to these similarities as well as the project's compliance with policies outlined in the City's General Plan, a less-than-significant lighting impact is anticipated to occur.

C. Would the project substantially degrade the existing visual character of the site or its surroundings?

No additional significant environmental effect. Visually sensitive public locations include vantage points where a change affecting a scenic resource or the visibility of a scenic resource would affect the general public. Visually sensitive public locations within the City of Sacramento include major natural open space features such as the American River and Sacramento River, as well as important scenic resources including the State Capitol and historic landmarks such as the Old Sacramento Waterfront.

The proposed project requires the development of an existing vacant lot within an urban location and is not located near any significant visual resources. Additionally, the project design will preserve the large wetland swale that bisects the parcel as an open area corridor, maintaining the habitat's function as well as its scenic value within the surrounding landscape.

The project will result in the construction of a residential community that is consistent with the project's location and the City's General Plan and compatible with the existing residential communities located in the immediate vicinity. Because the proposed project is consistent with the General Plan, impacts related to aesthetics have been evaluated within the General Plan EIR. With adherence to General Plan policies, the development of the project is not anticipated to substantially alter the existing visual character of the landscape.

MITIGATION MEASURES

None.

FINDINGS

The project would have no additional project-specific environmental effects relating to Aesthetics.

	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
2. AIR QUALITY *Would the proposal:* A) Result in construction emissions of NO_x above 85 pounds per day?			X
B) Result in operational emissions of NO_x or ROG above 65 pounds per day?			X
C) Violate any air quality standard or have a cumulatively considerable contribution to an existing or projected air quality violation?			X
D) Result in PM_{10} and $PM_{2.5}$ concentrations that exceed SMAQMD requirements?		X	
E) Result in CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm)?			X
F) Result in exposure of sensitive receptors to substantial pollutant concentrations?			X
G) Result in TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources?			X
H) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X

ENVIRONMENTAL SETTING

The City of Sacramento is located within the Sacramento Valley Air Basin (SVAB), which is a valley bounded by the North Coast Mountain Ranges to the west and the Northern Sierra Nevada Mountains to the east. The terrain in the valley is flat and approximately 25 feet above sea level.

Hot, dry summers and mild, rainy winters characterize the Mediterranean climate of the Sacramento Valley. Throughout the year, daily temperatures may range by 20 degrees Fahrenheit with summer highs often exceeding 100 degrees and winter lows occasionally below freezing. Average annual rainfall is about 20 inches and snowfall is very rare. Summertime temperatures are normally moderated by the presence of the "Delta breeze" that arrives through the Carquinez Strait in the evening hours.

The mountains surrounding the SVAB create a barrier to airflow, which can trap air pollutants in the valley. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in a stable volume of air. The surface concentrations of pollutants are highest when these conditions are combined with temperature inversions that trap cooler air and pollutants near the ground.

The warmer months in the SVAB (May through October) are characterized by stagnant morning air or light winds, and the Delta breeze that arrives in the evening out of the southwest. Usually, the evening breeze transports a portion of airborne pollutants to the north and out of the Sacramento Valley. During about half of the day from July to September, however, a phenomenon called the "Schultz Eddy" prevents this from occurring. Instead of allowing the prevailing wind patterns to move north carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern to circle back south. This phenomenon exacerbates the pollution levels in the area and increases the likelihood of violating Federal or State standards. The Schultz Eddy normally dissipates around noon when the Delta breeze begins.

Criteria Air Pollutants

Concentrations of emissions from criteria air pollutants (the most prevalent air pollutants known to be harmful to human health) are used to indicate the quality of the ambient air. Criteria air pollutants include ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable and fine particulate matter (PM_{10} and $PM_{2.5}$), and lead. The sources of criteria air pollutants and their respective acute and chronic health impacts are described in Table 1.

Table 1. Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	Increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	Permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	Headache, dizziness, fatigue, nausea, vomiting, death	Permanent heart and brain damage
Nitrogen dioxide (NO_2)	Combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	Coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	Chronic bronchitis, decreased lung function

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Sulfur dioxide (SO_2)	Coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO2 exposure to chronic health impacts
Respirable particulate matter (PM_{10}), Fine particulate matter ($PM_{2.5}$)	Fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the Atmosphere by condensation and/or transformation of SO2 and ROG	Breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, Premature death	Alterations to the immune system, carcinogenesis
Lead	Metal processing	Reproductive/developmental effects (fetuses and children)	Numerous effects including neurological, endocrine, and cardiovascular effects

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases.
1. "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.
2. "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.
Source: EPA 2018

Existing Air Quality

The U.S. Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970 and most recently amended by Congress in 1990. The CAA required EPA to establish the National Ambient Air Quality Standards (NAAQS) for the following criteria air pollutants: ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. CAA also requires each State to prepare a State implementation plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. Individual SIPs are modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies.

The California Air Resources Board (CARB) is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish its own California Ambient Air Quality Standards (CAAQS). CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS.

The SVAB is currently designated as nonattainment for the NAAQS 8-hour ozone standard and the CAAQS for both 1-hour and 8-hour O_3 standard. The SVAB is also currently designated as nonattainment for both NAAQS and CAAQS 24-hour PM_{10} standards. In addition, the SVAB is currently designated as

nonattainment for the NAAQS 24-hour $PM_{2.5}$ standard. The air basin is designated as unclassified or in attainment for the remaining criteria air pollutants (SMAQMD 2019).

Toxic Air Contaminants

According to the California Almanac of Emissions and Air Quality (CARB 2013), the majority of the estimated health risks from toxic air contaminants (TACs) can be attributed to relatively few compounds, the most important being diesel particulate matter (diesel PM). Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

Sensitive Receptors

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants. The closest sensitive receptors to the project site include residential dwellings and a high school.

Greenhouse Gases

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. GHGs are responsible for "trapping" solar radiation in the earth's atmosphere, a phenomenon known as the greenhouse effect. Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. Emissions of GHGs contributing to global climate change are attributable, in large part, to human activities associated with on-road and off-road transportation, industrial/manufacturing, electricity generation by utilities and consumption by end users, residential and commercial on-site fuel usage, and agriculture and forestry. Emissions of CO_2 are, largely, byproducts of fossil fuel combustion.

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

Several regulations currently exist related to GHG emissions, predominantly Assembly Bill (AB) 32, Executive Order S-3-05, and Senate Bill (SB) 32. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. Executive Order S-3-05 established the GHG emission reduction target for the State to reduce to the 2000 level by 2010, the 1990 level by 2020 (AB 32), 40 percent below the 1990 level by 2030, and to 80 percent below the 1990 level by 2050 (SB 32).

To meet the statewide GHG emission targets, the City adopted the City of Sacramento Climate Action Plan (CAP) on February 14, 2012 to comply with AB 32. The CAP identified how the City and the broader community could reduce Sacramento's GHG emissions and included reduction targets, strategies, and specific actions. In 2015, the City of Sacramento adopted the 2035 General Plan Update. The update incorporated measures and actions from the CAP into Appendix B, General Plan CAP Policies and Programs, which includes citywide policies and programs that are supportive of reducing GHG emissions

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, air quality impacts may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of 2035 General Plan policies:

- Construction emissions of NOx above 85 pounds per day;
- Operational emissions of NOx or ROG above 65 pounds per day;
- Violation of any air quality standard or contribute substantially to an existing or projected air quality violation;
- Any increase in PM_{10} concentrations, unless all feasible Best Available Control Technology (BACT) and Best Management Practices (BMPs) have been applied, then increases above 80 pounds per day or 14.6 tons per year;
- CO concentrations that exceed the 1-hour State ambient air quality standard (i.e., 20.0 ppm) or the 8-hour State ambient standard (i.e., 9.0 ppm); or
- Exposure of sensitive receptors to substantial pollutant concentrations.

Ambient air quality standards have not been established for toxic air contaminants (TAC). TAC exposure is deemed to be significant if:

- TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources.

A project is considered to have a significant effect relating to greenhouse gas emissions if it fails to satisfy the requirements of the City's Climate Action Plan.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR addressed the potential effects of the 2035 General Plan on ambient air quality and the potential for exposure of people, especially sensitive receptors such as children or the elderly, to unhealthful pollutant concentrations. See Master EIR, Chapter 4.2.

Policies in the 2035 General Plan in Environmental Resources were identified as mitigating potential effects of development that could occur under the 2035 General Plan. For example, Policy ER 6.1.1 calls for the City to work with the California Air Resources Board and the Sacramento Metropolitan Air Quality Management District (SMAQMD) to meet state and federal air quality standards; Policy ER 6.1.2 requires the City to review proposed development projects to ensure that the projects incorporate feasible measures that reduce construction and operational emissions; Policy ER 6.1.4 and ER 6.1.11 calls for coordination of City efforts with SMAQMD; and Policy ER 6.1.15 requires the City to give preference to contractors using reduced-emission equipment.

The Master EIR identified exposure to sources of toxic air contaminants (TACs) as a potential effect. Policies in the 2035 General Plan would reduce the effect to a less-than-significant level. The policies include ER 6.1.4, requiring coordination with SMAQMD in evaluating exposure of sensitive receptors to TACs, and impose appropriate conditions on projects to protect public health and safety; as well as Policy LU 2.7.5 requiring extensive landscaping and trees along freeways fronting elevation and design elements that provide proper filtering, ventilation, and exhaust of vehicle air emissions from buildings.

The Master EIR found that greenhouse gas emissions that would be generated by development consistent with the 2035 General Plan would contribute to climate change on a cumulative basis. Policies of the General Plan identified in the Master EIR that would reduce construction related GHG emissions include: ER 6.1.2, ER 6.1.11 requiring coordination with SMAQMD to ensure feasible mitigation measures are incorporated to reduce GHG emissions, and ER 6.1.15. The 2035 General Plan incorporates the GHG reduction strategy of the 2012 Climate Action Plan (CAP), which demonstrates compliance mechanism for achieving the City's adopted GHG reduction target of 15 percent below 2005 emissions by 2020. Policy ER 6.1.8 commits the City to assess and monitor performance of GHG emission reduction efforts beyond 2020, and progress toward meeting long-term GHG emission reduction goals, ER 6.1.9 also commits the City to evaluate the feasibility and effectiveness of new GHG emissions reduction measures in view of the City's longer-term GHG emission reductions goal. The discussion of greenhouse gas emissions and climate change in the 2035 General Plan Master EIR are incorporated by reference in this Initial Study. (CEQA Guidelines Section 15150)

The Master EIR identified numerous policies included in the 2035 General Plan that addressed greenhouse gas emissions and climate change. See Draft Master EIR, Chapter 4.14, and pages 4.14-1 et seq. The Master EIR is available for review online at

http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports

During construction of the proposed project, various types of equipment and vehicles would operate on the project site. Construction exhaust emissions would be generated from construction equipment, any earth-moving activities, construction workers' commute, and material hauling for the entire construction period. These activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants.

According to the CalEEMod results, the proposed project is estimated to result in maximum daily construction emissions and maximum daily operational emissions as outlined in Table 2.

Table 2. Anticipated Maximum Project Emissions

Pollutant	SMAQMD Threshold of Significance	Project Emissions
Construction		
NO_x	85 lbs/day	13.12 lbs/day
PM_{10}	80 lbs/day	2.01 lbs/day
$PM_{2.5}$	82 lbs/day	0.98 lbs/day
GHG as CO2e	1,100 MT/yr	593.78 MT/yr
Operational		
NO_x	65 lbs/day	6.7 lbs/day
ROG	65 lbs/day	19.47 lbs/day
PM_{10}	80 lbs/day	7.85 lbs/day
$PM_{2.5}$	82 lbs/day	2.22 lbs/day
GHG as CO2e	1,100 MT/yr	1,844.50 MT/yr*

Source: CalEEMod, January 2022 (see Appendix A)'
**Refer to Checklist Question H*

ANSWERS TO CHECKLIST QUESTIONS – AIR QUALITY

A. Result in construction emissions of NOx above 85 pounds per day?

No significant additional environmental effect. Construction emissions for the proposed project were estimated using CalEEMod.2016.3.1. The modelling assumptions, inputs, and output file can be found in Appendix A of this document. The results of the modelling show that construction of the project would result in up to 2.39 tons of NOx annually (or 13.1 pounds of NOx per day). Therefore, construction of the proposed project would not result in excess of 85 pounds of NOx per day.

B. Result in operational emissions of NOx or ROG above 65 pounds per day?

No significant additional environmental effect. Operational emissions for the proposed project were estimated using CalEEMod.2016.3.1. The modelling assumptions, inputs, and output file can be found in Appendix A. The results of the modelling show that operational emissions resulting from the new homes would result in up to 1.23 tons of NOx annually (6.7 pounds per day), and 3.55 tons of ROG annually (19.47 pounds per day). Therefore, operational emissions as a result of the proposed project would not result in excess of 65 pounds per day.

C. Violate any air quality standard or have a cumulatively considerable contribution to an existing or projected air quality violation?

No significant additional environmental effect. The Project would not violate any air quality standard or have a cumulatively considerable contribution to an existing or projected air quality violation. The Project would construct approximately 135 single-family homes and multiple local roadways on the undeveloped site. This would not significantly increase the regional population, housing, or employment growth.

The SMAQMD has adopted Community Air Monitoring and Community Emissions Reduction Programs as part of Assembly Bill 617 and has identified the Project area as being within a one-half mile buffer of a community most impacted by air pollution (SMAQMD 2018); however, the proposed project is consistent with surrounding land use and will create new housing units in a region identified by the SMAQMD as generating low VMT. In addition, no requirements have been identified by SMAQMD for projects constructed or operating within that one-half mile buffer. The Project would not violate an air quality standard or have a contribution to and air quality violation.

D. Result in PM10 and PM2.5 concentrations that exceed SMAQMD requirements?

Effect can be mitigated to less than significant. The SMAQMD Thresholds of Significance for particulate matter (PM) includes the following and apply to both construction and operational emissions:

- PM10: Zero (0). IF all feasible BACT/BMPs are implemented, then 80 lbs/day and 14.6 tons/year

- PM2.5: Zero (0). IF all feasible BACT/BMPs are implemented, then is 82 lbs/day and 15 tons/year

Construction emissions for the proposed project were estimated using CalEEMod.2016.3.1. The modelling assumptions, inputs, and output file can be found in Appendix A. The results of the modelling show that construction of the proposed project would result in 0.367 tons annually (2.01 pounds per day) of PM10 emissions and 0.179 tons annually (0.98 pounds per day) of PM2.5

emissions. Operational emissions of the proposed project would result in 1.43 tons annually (7.85 pounds per day) of PM10 emissions and 0.41 tons annually (2.22 pounds per day) of PM2.5 emissions. With adherence to standard BMPs required with SMAQMD, as described in measure AQ-1, the proposed project would not result in PM10 or PM2.5 concentrations that exceed SMAQMD requirements.

E. Result in CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm)?

No significant additional environmental effect. Localized concentrations of CO, or "hot spots," are primarily of concern for heavily congested roadways with stop-and-go traffic, particularly in areas with limited vertical mixing such as tunnels, long underpasses, or below-grade roadways. While the proposed project would result in the construction of 135 new homes in a residential area that may generate additional traffic on adjacent roadways, the impact would not be to a significant degree such that roadways would congest and cause an exceedance of the state's 1-hour state ambient air quality standard for CO concentrations.

F. Result in exposure of sensitive receptors to substantial pollutant concentrations?

No significant additional environmental effect. Although construction of the Project would result in associated air pollutants, these increases are not concentrated and are well below significance thresholds as shown in the discussion above. Construction activities would be short-term and intermittent in nature and would not expose sensitive receptors to substantial pollutant concentrations. In addition, adherence to standard dust control and construction BMPs would be required as part of the Project's Construction Management Plan.

Homes built by this project will be consistent with current safety code and would not result in operational emissions that would expose sensitive receptors to long-term substantial pollutant concentrations as shown in the discussion above.

G. Result in TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources?

No significant additional environmental effect. The primary source for TACs typically result from diesel particulate matter (DPM) emitted from off-road equipment and onroad trucks. The project would result in the construction of 135 new residences and multiple new roadways, which would not facilitate an increase in off-road equipment use or truck traffic. Therefore, the proposed project would not substantially increase the risk of exposure to TACs from mobile sources.

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

To comply with AB 32 and meet the statewide GHG emission targets, the City adopted the City of Sacramento Climate Action Plan (CAP) on February 14, 2012. The CAP identified how the City and the broader community could reduce Sacramento's GHG emissions and included reduction targets, strategies, and specific actions. In 2015, the City of Sacramento adopted the 2035 General Plan Update. The update incorporated measures and actions from the CAP into Appendix B, General Plan CAP Policies and Programs, which includes citywide policies and programs that are supportive of reducing GHG emissions. Upon adoption of the 2035 General Plan, the 2012 CAP was rescinded, and the 2035 General Plan became the City's CAP. In updating the 2035 General Plan the City has met the State standards as a qualified plan for the reduction of greenhouse gas emissions under Section 15183.5 of the State CEQA Guidelines. It should be noted that the City is currently undertaking an update to the City's General Plan as well as a stand-alone Climate Action and Adaptation Plan (CAAP).

Operational GHG emissions for all land development projects are subject to the requirements of SMAQMD BMPs as discussed in measure **AQ-2**. As an in-fill development project that will place housing units close to retail and employment opportunities, resulting in per-capita VMT below the regional average, the project is consistent with the CAAP and meets the criteria for projects with de minimis mobile GHG impacts as described in the Greenhouse Gas Thresholds Guidance (SMAQMD, June 2020), which is adopted from the OPR December 2018 Technical Advisory. Under this guidance, residential projects in areas with low VMT that incorporate similar features and adhere to Tier 1 BMPs described in measure **AQ-2** are assumed to have a negligible contribution toward total GHG emissions, even if the operational emissions threshold is exceeded.

The Sacramento Area Council of Governments (SACOG) has developed a screening map to estimate the average vehicle miles traveled (VMT) by residential units in different parts of the greater Sacramento region. SACOG's screening map is based on data contained within the latest version of its travel demand model, SACSIM19. SACSIM19 has a base year scenario that represents 2016 conditions and was used to set regional efficiency thresholds (VMT/capita or VMT/employee) for both residential and non-residential projects. The SACOG region is segmented into hexagons with an approximately half-mile diameter that are used to determine the VMT efficiency (average VMT/capita or VMT/employee) for each hexagon.

For residential projects, the regional threshold is defined as total household VMT per capita achieving a 15-percent reduction compared to the regional average. Residential VMT per capita for each hexagon is calculated by tallying the total VMT produced for all households located within the hexagon, including VMT for trips that travel outside of the region, and dividing by the total population in the hexagon. The regional daily per capita VMT is 20.82 miles. The proposed project is in hexagon DJ-129 with daily per capita VMT estimated at 17.49 miles which is less than 85% of the regional average. Therefore, the project is assumed to be a residential project in an area with low VMT, and therefore meets the criteria for a project with de minimis mobile GHG impacts.

With adherence to standard BMPs required with SMAQMD, as described in measures **AQ-1 and AQ-2,** and due to the project qualification as de minimis for GHG impacts, the proposed project would not conflict with existing CAP Policies and programs that intend to reduce emissions of greenhouse gases and potential GHG impacts are less than significant.

MITIGATION MEASURES

AQ-1: Implement SMAQMD Basic and Enhanced Construction Emission Control Practices to Reduce Fugitive Dust.

The implementing agency will require, as a standard or specification of their contract, the construction contractor(s) to implement basic and enhanced control measures to reduce construction-related fugitive dust. Although the following measures are outlined in the SMAQMD's CEQA guidelines, they are required for the entirety of the construction area. The implementing agency will ensure through contract provisions and specifications that the contractor adheres to the mitigation measures before and during construction and documents compliance with the adopted mitigation measures.

- Water all exposed surfaces two times daily. Exposed surfaces include (but are not limited to) soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least 2 feet of freeboard space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.

- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour.
- All roadway, driveway, sidewalk, and parking lot paving should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

AQ-2: In accordance with the SMAQMD's CEQA Guidance, all land development projects are required to implement Tier 1 BMPs, which consist of the following:

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

FINDINGS

All additional significant environmental effects of the project relating to Air Quality can be mitigated to a less-than-significant level.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
2. BIOLOGICAL RESOURCES Would the proposal: A) Create a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected?		X	
B) Result in substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal species?			X
C) Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands)?		X	

ENVIRONMENTAL SETTING

Prior to human development, the natural habitats within the region included perennial grasslands, riparian woodlands, oak woodlands, and a variety of wetlands including vernal pools, seasonal wetlands, freshwater marshes, ponds, streams, and rivers. Over the last 150 years, agriculture, irrigation, flood control, and urbanization have resulted in the loss or alteration of much of the natural habitat within the City limits. Non-native annual grasses have replaced the native perennial grasslands, many of the natural streams have been channelized, much of the riparian and oak woodlands have been cleared, and most of the marshes have been drained and converted to agricultural or urban uses.

The project site consists of non-native grassland, seasonal wetlands and swales, urban areas, and a small portion of Magpie Creek (Figure 4. Vegetation Communities). Additionally, the project encompasses a section of the Sacramento Northern Bike Trail, which runs parallel with Rio Linda Boulevard on the eastern border of the project area. Commercial and residential developments within and in the vicinity of the project include roadways, pedestrian walkways, single-family homes, and Futures High School.

The annual grassland habitat, which makes up most of the project area, is non-native and frequently disturbed by weed suppression activities such as mowing and plowing. Wetland features are scattered throughout the project site and provide sensitive natural habitat for local species. Despite the presence of sensitive habitat features, no special status species are anticipated to occur within the project area. The project occurs within the Sacramento Valley floristic region and USFS ecological subsection 262Af (Hardpan Terraces), which is geologically characterized by low hills and alluvial plains.

Prior to field work, literature research was conducted through the U.S. Fish and Wildlife Service (USFWS) Planning Species List, California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) Electronic Inventory of Rare and

Endangered Plants, and the National Marine Fisheries Service (NMFS) to identify habitats and special-status species having the potential to occur within the project area. A shapefile of the Project Area was used to generate an official species list through the Information for Planning and Consultation (IPaC) operated by USFWS. A six-quadrangle search of the USGS 7.5-minute quadrangles Carmichael (3812153), Sacramento East (3812154), Sacramento West (3812155), Citrus Heights (3812163), Rio Linda (3812164), and Taylor Monument (3812165) was used to obtain lists from the CNDDB, CNPS, and NMFS.

Sensitive Habitats

Sensitive habitats include sensitive natural plant communities and other habitats designated and/or regulated by CDFW, USFWS, and U.S. Army Corps of Engineers (USACE). Under Section 404 of the Clean Water Act (CWA), wetlands and other waters of the U.S. are subject to the jurisdiction of USACE. Aquatic habitats may also receive protection under California statutes including Section 1602 of the California Fish and Wildlife Code and the California Porter-Cologne Water Quality Control Act.

Special-status Species

Special-status species are plants and animals in the following categories:

- Species that are listed under the federal Endangered Species Act (ESA) and/or California Endangered Species Act (CESA) as rare, threatened, or endangered;
- Species considered as candidates and proposed for state or federal listing
- Wildlife designated by CDFW as species of special concern; and
- Plants ranked by CDFW as “rare, threatened, or endangered” in California.
- The California Natural Diversity Database (CNDDB), maintained by the CDFW, is considered as the most current and reliable tool for tracking occurrences of special-status species in California.

Special Status Species Evaluation

The special status species evaluation considers those species identified as having relative scarcity and/or declining populations by the USFWS or CDFW. Special status species include those formally listed as threatened or endangered, those proposed for formal listing, candidates for federal listing, and those classified as Species of Concern by USFWS or Species of Special Concern by CDFW. Species considered to be “special animals” or “fully protected” by the CDFW or rare, threatened, or endangered in California by the California Native Plant Society (CNPS) were also included in the evaluation.

Regulatory Setting

The following city, State, and federal statutes pertain to the proposed project:

- National Environmental Policy Act (42 USC 4321 et seq.)
- Federal Endangered Species Act (16 USC 1531-1543)
- Section 404 of the Clean Water Act (33 USC 1251-1376)
- Fish and Wildlife Coordination Act (16 USC 661-6660)
- Executive Order 11990, Protection of Wetlands (May 24, 1977)
- Migratory Bird Treaty Act of 1918 (USC 703-711)
- California Environmental Quality Act (PRC 21000 et seq.)
- California Endangered Species Act (CDFW Code 2050 et seq.)
- Native Plant Protection Act (CDFW Code 1900-1913)
- City of Sacramento Heritage Tree Ordinance (SCC Section 12.64.10-12.64.70)
- City of Sacramento Street Tree Ordinance (SCC Section 12.56.10-12.56.170)

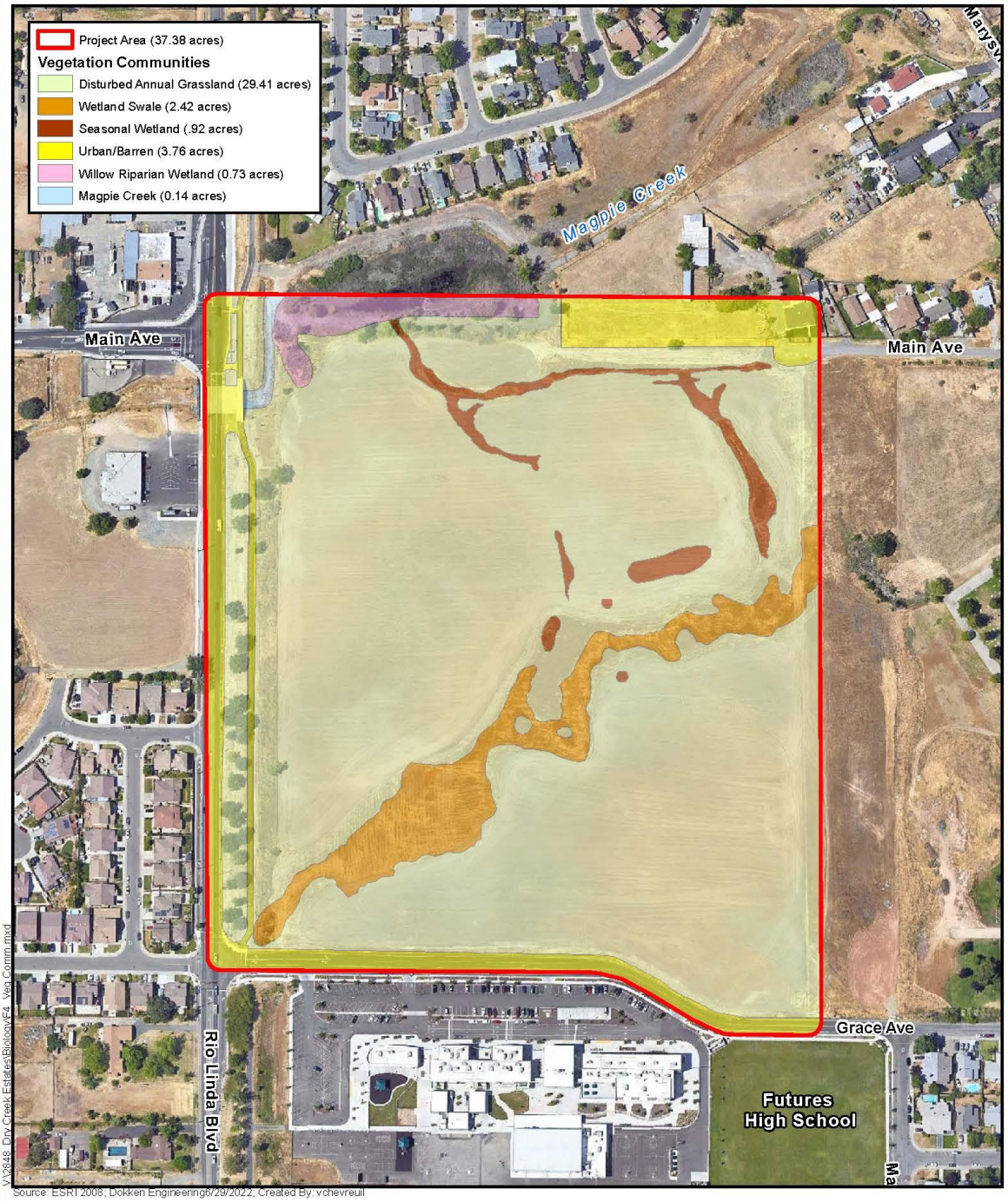

FIGURE 4
Vegetation Communities

Dry Creek Estates Project
Sacramento County, California

Federal Endangered Species Act

The Federal Endangered Species Act defines 'take' (Section 9) and prohibits 'taking' of a listed endangered or threatened species (16 USC 1532, 50 CFR 17.30. If a federally listed species could be harmed by a project, Section 7 or 10 consultations must be initiated, and an Incidental Take Permit must be obtained (16 USC 1539, 50 CFR 13).

Federal Migratory Bird Treaty Act

Migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10 including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). All migratory bird species are protected by the MBTA. Any removal of active nests during the breeding season or any disturbance that results in the abandonment of nestlings is considered a 'take' of the species under federal law.

Setting and Methods

Field surveys were conducted in October 2021 to document existing biological resources, detect potential jurisdictional waters of the U.S. and State, and search for suitable habitat and presence of Federal and State protected species. Potential impacts to resources were analyzed based on the proposed project design and ecological resources identified in the field surveys. Queries of the USFWS Planning Species list, CNDDB Electronic Inventory of Rare and Endangered Plants, NMFS Species List, and CNPS database queries identified several special-status species with the potential to be impacted by the proposed project. Field surveys performed by Madrone Ecological Consulting (Madrone) biologists and Dokken Engineering (Dokken) biologists determined that no special status species are anticipated to occur within the project area. For a more detailed discussion, refer to Appendix B Biological Resources Technical Report.

STANDARDS OF SIGNIFICANCE

For purposes of this environmental document, an impact would be significant if any of the following conditions or potential thereof, would result with implementation of the proposed project:

- Creation of a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected;
- Substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal; or
- Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands).

For the purposes of this document, "special-status" has been defined to include those species, which are:

- Listed as endangered or threatened under the federal Endangered Species Act (or formally proposed for, or candidates for, listing);
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);
- Designated as endangered or rare, pursuant to California Fish and Game Code (Section 1901);
- Designated as fully protected, pursuant to California Fish and Game Code (Section 3511, 4700, or 5050);

- Designated as species of concern by U.S. Fish and Wildlife Service (USFWS), or as species of special concern to California Department of Fish and Game (CDFG);
- Plants or animals that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA).

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

Chapter 4.3 of the Master EIR evaluated the effects of the 2035 General Plan on biological resources within the City. The Master EIR identified potential impacts in terms of degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status birds, through the loss of both nesting and foraging habitat.

Policies in the 2035 General Plan were identified as mitigating the effects of development that could occur under the provisions of the 2035 General Plan. Policies ER 2.1.5 and 2.1.6 call for the City to preserve the ecological integrity of creek corridors, wetlands, and other riparian resources; Policy ER 2.1.10 requires the City to consider the potential impact on sensitive plants for each project and to require pre-construction surveys when appropriate; and Policy ER 2.1.11 requires the City to coordinate its actions with those of the California Department Fish and Wildlife, U.S. Fish and Wildlife Service, and other agencies in the protection of resources.

The Master EIR discussed biological resources in Chapter 4.3. The Master EIR concluded that policies in the General Plan, combined with compliance with the California Endangered Species Act, Natomas Basin HCP (when applicable) and CEQA would minimize the impacts on special-status species to a less-than-significant level (see Impact 4.3-1), and that the General Plan policies, along with similar compliance with local, state and federal regulation would reduce impacts to a less-than-significant level for habitat for special-status invertebrates, birds, amphibians and reptiles, mammals and fish (Impacts 4.3-2-6).

In accordance with the General Plan, the City shall encourage new development to preserve on-site natural elements that contribute to the community's native plant and wildlife species value and to its aesthetic character (Policy ER 2.1.1). Additionally, the General Plan calls for the City to preserve the ecological integrity of creek corridors, canals and drainage ditches that support riparian resources (Policy ER 2.1.5) and wetlands (Policy ER 2.1.6) and requires habitat assessments and impact compensation for projects (Policy ER 2.1.10). The City has adopted a standard that requires coordination with state and federal agencies if a project has the potential to affect other species of special concern or habitats (including regulatory waters and wetlands) protected by agencies or natural resource organizations (Policy 2.1.11).

Implementation of 2035 General Plan Policy ER 2.1.5 would reduce the magnitude of potential impacts by requiring a 1:1 replacement of riparian habitat lost to development. Given the extent of urban development designated in the General Plan, the preservation and/or restoration of riparian habitat would likely occur outside of the City limits. The Master EIR concluded that the permanent loss of riparian habitat would be a less-than-significant impact (Impact 4.3-7).

Implementation of the 2035 General Plan allows for new development, which can impact or remove state or federally protected wetlands and/or waters of the U.S. through removal, filling, or hydrological interruption (Impacts 4.3-7, 12). However, with the implementation of specific policy measures (Policies ER 1.1.1, 2.1.1, 2.1.6, 2.1.11), impacts to these communities would be considered less-than-significant.

ANSWERS TO CHECKLIST QUESTIONS – BIOLOGICAL RESOURCES

A) Result a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected?

Effect can be mitigated to less than significant. Construction of the project will require the use of hazardous materials including oil and fuel to operate construction equipment, as well as the installation of concrete and asphalt fixtures. The project area consists primarily of disturbed annual grassland habitat; however, wetlands and wetland swales located on-site provide sensitive natural habitat that will be impacted by construction. Through the implementation of standard avoidance and minimization measures (BIO-1, BIO-2, BIO-3, and BIO-9), unnecessary impacts to sensitive habitat communities will be avoided and the release of pollutants into sensitive areas will be minimized. The handling, storage, and use of fuel, lubricants, and other hazardous materials associated with project construction will be compliant with local, state, and federal regulations.

B) Result in substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal species?

No significant additional environmental effect. The Dry Creek Estates project would not result in substantial degradation of the environment, reduction of the habitat, or reduction of population below self-sustaining levels of threatened or endangered species. Database searches identified 26 special status or sensitive wildlife species and 9 special status or sensitive plant species that have been found in the vicinity of the project site. An analysis of habitat requirements, recorded observations, and field survey results determined that all special status species are presumed absent from the project area; therefore, no impacts to these species are anticipated and consultation is not required.

There is a recent (2007) CNDDB occurrence of Swainson's hawk located approximately 1.1 miles northwest of the Project area. The Project area encompasses grassland habitat; however, it does not include any suitable riparian habitat or nesting trees. In addition, the existing field is regularly disturbed by agricultural activities, limiting the opportunity for rodents to establish large local populations for predation. Therefore, while the species may be transient within the area, there are no opportunities for this species to nest and limited foraging potential within the Project area. Due to a lack of suitable nesting habitat, this species is presumed to be absent from the Project area and consultation with CDFW is not required.

C) Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands)?

Effect can be mitigated to less than significant. A biological survey performed on-site by Madrone identified the presence of seasonal wetlands, wetland swale, and willow riparian wetland within the boundaries of the project area (Figure 4). These aquatic communities provide habitat for local wildlife species and are identified as natural communities of special concern. The wetland swale that bisects the project area will be protected in place during construction and no impacts to this habitat feature are expected. Anticipated project impacts to sensitive natural habitats located on-site are outlined below (Table 3. Project Impacts to Sensitive Natural Habitats; Figure 5. Project Impacts; Figure 6. Proposed Impacts to Magpie Creek).

In addition to the residential developments, the project proposes to install an extension of Main Avenue over Magpie Creek in the northwest corner of the project area. The Project would construct a bridge over the existing alignment of Magpie Creek and would result in both temporary and permanent impacts to the creek and an adjacent wetland feature (Table 3).

Table 3. Project Impacts to Sensitive Natural Habitats

Habitat Type	Temporary Impacts	Permanent Impacts
Wetland Swale	--	--
Seasonal Wetland	--	0.92 acres
Willow Riparian Wetland	0.09 acres	0.26 acres
Magpie Creek	0.09 acres	0.05 acres
Total	**0.18 acres**	**1.23 acres**

The applicant/developer will acquire the appropriate permits for the project, including a Section 404 Nationwide Permit from the USACE, a Section 401 Water Quality Certification from RWQCB, a National Pollutant Discharge Elimination System (NPDES) Permit from RWQCB, and a Section 1602 Streambed Alteration Agreement from the CDFW. With the implementation of appropriate avoidance and minimization measures (BIO-1, BIO-2, BIO-3, BIO-6, BIO-7, and BIO-9), potential impacts to local sensitive resources will be reduced. Any permanent project impacts to these resources will be mitigated in coordination with CDFW, USACE, and the local RWQCB. Therefore, the project's effects will be mitigated to be less than significant.

MITIGATION MEASURES

BIO-1: The construction managers and the project foreman must attend a biological awareness training session delivered by a biologist. This training program shall include information regarding the sensitive habitats and special-status species occurring or potentially occurring within the project Area, and the importance of avoiding impacts to these species and their habitat.

BIO-2: As a first order of work, construction limits within natural communities of special concern (wetland swale, riparian wetland, seasonal wetland, creek) will be marked with high visibility Environmentally Sensitive Area (ESA) fencing or staking to ensure construction will not further encroach into sensitive habitat resources.

BIO-3: Water Quality BMPs will be incorporated into project design and project management to minimize impacts on the environment including erosion and the release of pollutants (e.g. oils, fuels):

- Exposed soils and material stockpiles would be stabilized, through watering or other measures, to prevent the movement of dust at the project site caused by wind and construction activities such as traffic and grading activities;
- All construction roadway areas would be properly protected to prevent excess erosion, sedimentation, and water pollution;
- All vehicle and equipment fueling/maintenance would be conducted outside of any surface waters;
- Equipment used in and around jurisdictional waters must be in good working order and free of dripping or leaking contaminants;
- 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 shall be prevented from contaminating the soil or entering jurisdictional waters;

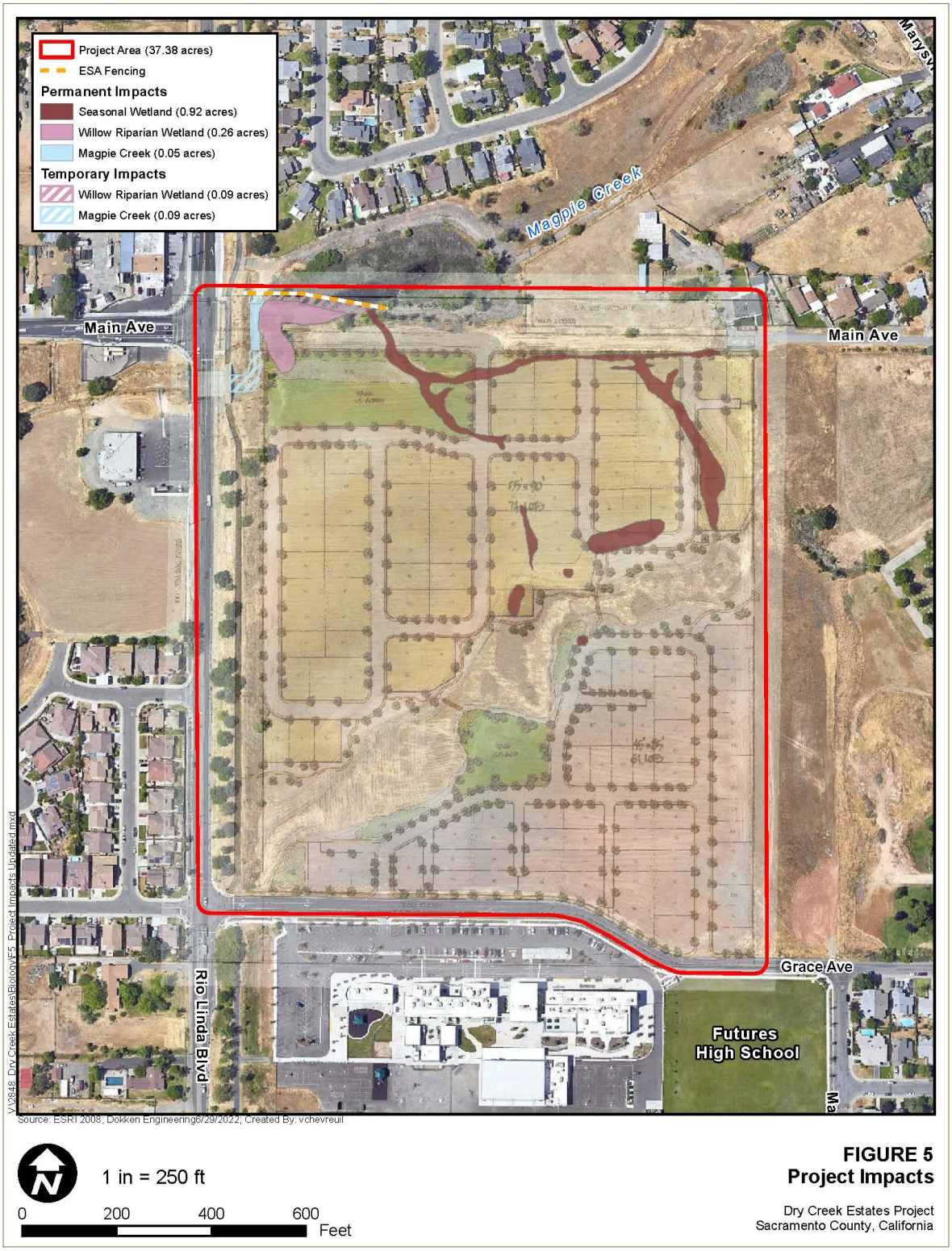

FIGURE 5
Project Impacts

Dry Creek Estates Project
Sacramento County, California

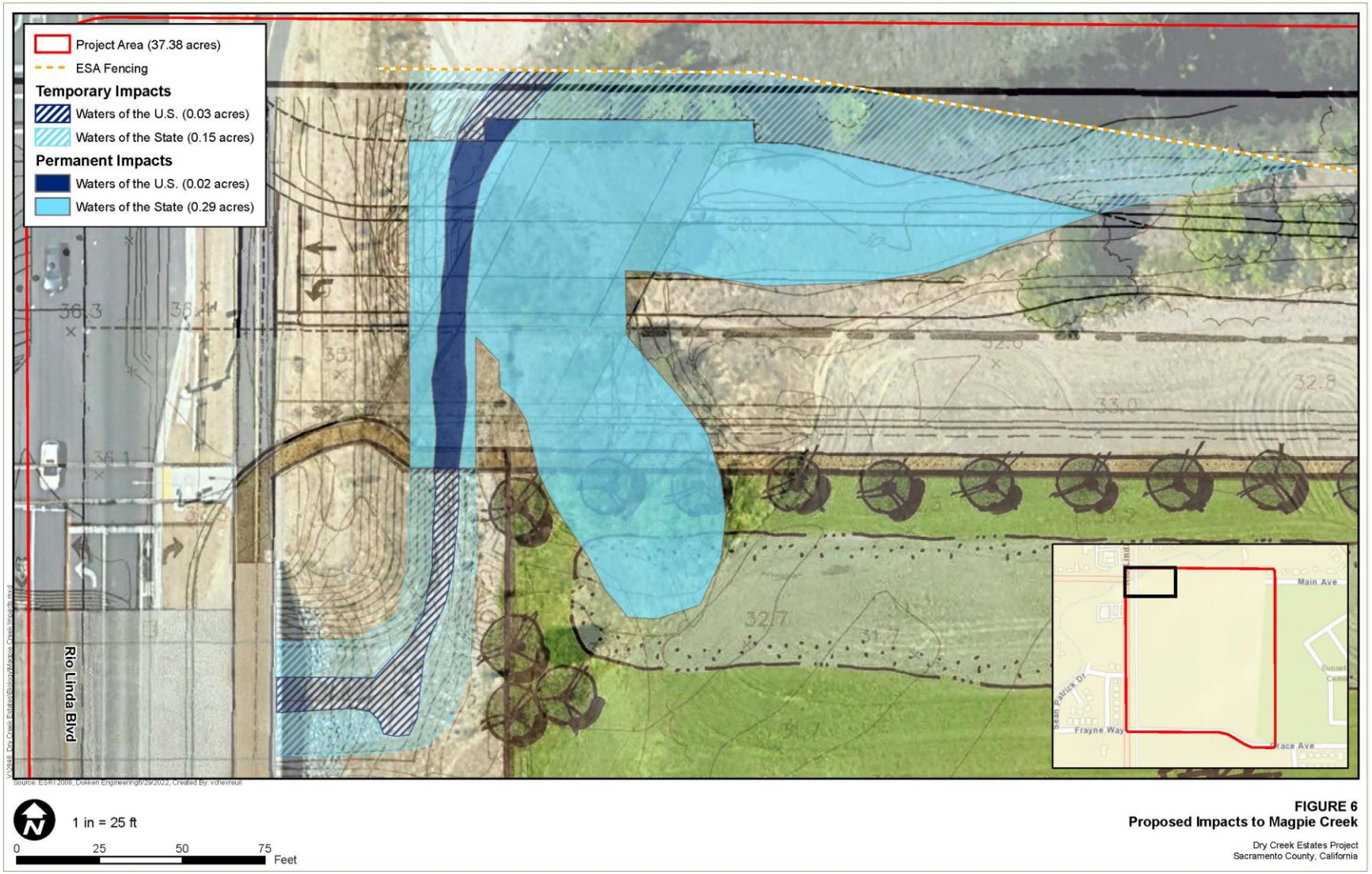

FIGURE 6
Proposed Impacts to Magpie Creek

Dry Creek Estates Project
Sacramento County, California

- All erosion control measures and storm water control measures would be properly maintained until the site has returned to a pre-construction state;
- All disturbed areas would be restored to pre-construction contours and revegetated, either through hydroseeding or other means, with native or approved non-invasive exotic species;
- All construction materials would be hauled off-site after completion of construction.

BIO-4: Permanent impacts to sensitive habitat communities (wetlands, Magpie Creek) will be mitigated at a 3:1 ratio through purchase of credits at a regulatory agency-approved mitigation bank, or other approved methods, to be determined during the permitting phase of the project.

BIO-5: If construction is to occur within the nesting bird season (February 15 to September 30), then at most two weeks prior to the start of construction, a pre-construction nesting bird survey must be conducted by a qualified biologist to identify and locate any active nest within the project Area. A minimum 100-foot no-disturbance buffer will be established around any active nest of migratory birds and a minimum 300-foot no-disturbance buffer will be established around any nesting raptor species. The contractor is prohibited from conducting work within the buffer zone and from conducting activities that would disturb the birds (as determined by the project biologist) in the buffer area until a qualified biologist determines the young have fledged. A reduced buffer can be established if determined appropriate by the project biologist.

BIO-6: Prior to arrival at the project site and prior to leaving the project site, construction equipment that may contain invasive plants and/or seeds will be cleaned to reduce the spreading of noxious weeds.

BIO-7: Initial clearing and grubbing in the Magpie Creek Riparian corridor must be accomplished through the use of hand tools or with equipment operated at 3 miles per hour or less to allow wildlife to escape.

BIO-8: The contractor must dispose of all food-related trash in closed containers and must remove it from the project Area each day during construction. Construction personnel must not feed or attract wildlife to the project Area.

BIO-9: The contractor must not apply rodenticide or herbicide within the project Area during construction.

FINDINGS

All additional significant environmental effects of the project relating to Biological Resources can be mitigated to a less-than-significant level.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
3. CULTURAL RESOURCES Would the project: A) Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in § 15064.5?		X	
B) Directly or indirectly destroy a unique paleontological resource?			X
C) Disturb any human remains?		X	

ENVIRONMENTAL SETTING

The City of Sacramento and the surrounding area are known to have been occupied by Native American groups for thousands of years prior to settlement by non-Native peoples. Archaeological materials, including human burials, have been found throughout the city. Human burials outside of formal cemeteries often occur in prehistoric contexts. Areas of high sensitivity for archaeological resources, as identified in the 2035 General Plan Background Report, are located within close proximity to the Sacramento and American rivers and other watercourses.

The Project Area Limits (PAL) is situated within the Rancho del Paso (Ranch of the Pass) Mexican Land Grant which originally consisted of 44,371-acres and was bordered on the west by the present day Northgate Boulevard, on the south by the American River, on the east by present day Manzanita Avenue and on the north by Elverta Road (Armstrong 2011). The large acreage was mainly used to raise cattle and harvest wheat. Rancho del Paso was sold to the Sacramento Valley Colonization Company in 1900. Four thousand acres of the property was later sold to the North Sacramento Land Company in 1910. This acreage was turned into subdivisions by Daniel Johnson and named the City of North Sacramento (North Sacramento Chamber of Commerce N.D).

Initially a subsidiary of Western Pacific, the Sacramento Northern Railroad Company incorporated in 1918 and began acquiring all properties owned by the Northern Electric Railway Company, The Sacramento Terminal Company, the Sacramento & Woodland Railroad Company, and the Marysville & Colusa Branch (Fickewirth 1992). By 1925 sufficient acquisitions had been made and the Sacramento Northern Railroad (SNRR) began operations. The SNRR began as an electrified line, only converting to diesel in the 1960s. The line crosses the PAL was identified as the Sacramento to Chico Branch. The SNRR discontinued passenger service in 1949 and was later absorbed by the merging of Western Pacific into the Union Pacific in 1982 (Abandoned Rails N.D.; Windmiller and Osanna 1997). Most of the mainline and branches have been abandoned and some segments, like many railroad grades in the Sacramento area, have been rebuilt for new uses, such as pedestrian and cyclist trails. In 2006, the portion of the SNRR that passes through the PAL was converted into an extension of the Sacramento Northern Bike Trail. The trail provides a regional link between the Rio Linda and Elverta communities and the American River Parkway (County of Sacramento 2006).

Based on proximity to Magpie Creek, the marsh conditions at the site, and the availability of important resources, the PAL would have been a targeted location of indigenous activities. However, geoarchaeological study by Meyer and Rosenthal (2008) indicate that the Project area is made up of older Pleistocene age soils, which are *very low* sensitivity. Cut banks, irrigation ditch walls and rodent burrows within the PAL provided an opportunity to visually inspect exposed subsurface soils for the presence of artifacts, archaeological features, and anthropogenic soils. No cultural resources were observed. Since the area has undergone extensive modification due to agriculture, any buried site within 18 inches of the surface would have been disturbed. Sensitivity of the project area is therefore considered low.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, cultural resource impacts may be considered significant if construction and/or implementation of the proposed project would result in one or more of the following:

1. Cause a substantial change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5; or

2. Directly or indirectly destroy a unique paleontological resource; or

3. A substantial adverse change in the significance of such resources.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR evaluated the potential effects of development under the 2035 General Plan on prehistoric and historic resources. See Chapter 4.4.

General plan policies identified as reducing such effects call for identification of resources on project sites (Policy HCR 2.1.1), implementation of applicable laws and regulations (Policy HCR 2.1.2), early consultation with owners and land developers to minimize effects (Policy HCR 2.1.10) and encouragement of adaptive reuse of historic resources (Policy HCR 2.1.14). Demolition of historic resources is deemed a last resort. (Policy HCR 2.1.15)

The Master EIR concluded that implementation of the 2035 General Plan would have a significant and unavoidable effect on historic resources and archaeological resources. (Impacts 4.4-1, 2)

ANSWERS TO CHECKLIST QUESTIONS – CULTURAL RESOURCES

A) Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in § 15064.5?

Effects can be mitigated to less than significant. To identify any known cultural resources, a records search of project area was conducted via the North Central Information Center (NCIC). Additional research included searches of the National Register of Historic Places, the California Register of Historical Resources (California Register), the Directory of Properties in the Historic Property Data File, California Historic Landmarks (1996), the California Inventory of Historic Resources (1976), and the California Points of Historical Interest listing (May 1992 and updates). Map research included a review of historic USGS topographic maps and aerial photography. Using this data, previously recorded sites and previous surveys within a one-mile radius of the project area were reviewed.

The NCIC identified one (1) previous cultural resource investigation conducted within a portion of the project area, and another 48 conducted within one mile of the project. The previous investigation within the project area did not identify any prehistoric resources within the area but did identify a Sacramento

Northern Railroad Berm. The portion of the berm in proximity to the project area has since been destroyed. Furthermore, a pedestrian survey of the project area did not identify any indigenous artifacts, archaeological features, or anthropogenic soils. No cultural resources were identified within the project area; as such, the project is not anticipated to cause a substantial adverse change in the significance of a historical or archaeological resource as defined in § 15064.5.

The implementation of mitigation measures TCR-1a through TCR-1c will ensure the appropriate handling of cultural materials should they be discovered on-site during construction of the project.

B) Directly or indirectly destroy a unique paleontological resource?

No additional significant environmental effect. The proposed project is not anticipated to impact paleontological resources. The Master EIR specifies that the general Sacramento Area is not considered sensitive for paleontological resources. Furthermore, a geoarchaeological study by Meyer and Rosenthal (2008) indicate that the Project area is made up of older Pleistocene age soils, which are very low sensitivity. A review of records on file at the NCIC, archival research, Native American consultation, and a pedestrian surface survey were conducted to identify historic properties and historical resources that might be affected by the project. Cut banks, irrigation ditch walls and rodent burrows within the project area provided an opportunity to visually inspect exposed subsurface soils for the presence of artifacts, archaeological features, and anthropogenic soils. No cultural resources were observed.

The implementation of mitigation measures TCR-1a through TCR-1c will ensure the appropriate handling of cultural materials should they be discovered on-site during construction of the project.

C) Disturb any human remains?

Effects can be mitigated to less than significant. Given the disturbed nature of the project site, surface cultural resources are not likely to be found on-site during grading and construction activities. However, due to the predominant historic theme of the region as a whole, which includes thousands of years of occupation by Native American groups prior to non-Native peoples settling in the region, the possibility exists that previously unknown resources could be encountered during ground-disturbing activities associated with development of the project. If human remains are discovered during the construction of the project, the implementation of mitigation measure TCR-1c will ensure the appropriate procedures are followed to determine the nature of the remains.

MITIGATION MEASURES

CR-1a: Conduct Cultural Resources Sensitivity and Awareness Training Program Prior to Ground-Disturbing Activities.

The City shall require the applicant/contractor to provide a cultural resources and tribal cultural resources sensitivity and awareness training program (Worker Environmental Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The WEAP will be developed in coordination with an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology. The WEAP shall be conducted before any project-related construction activities begin at the project site. The WEAP will include relevant information regarding sensitive cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations.

The WEAP will also describe appropriate avoidance and impact minimization measures for cultural resources that could be located at the project site and will outline what to do and

who to contact if any potential cultural resources are encountered. The WEAP will emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance.

CR-1b: In the Event that Cultural Resources Are Discovered During Construction, Implement Avoidance and Minimization Measures to Avoid Significant Impacts and Procedures to Evaluate Resources.

If cultural resources (such as structural features, unusual amounts of bone or shell, artifacts, or human remains) are encountered at the project site during construction, work shall be suspended within 100 feet of the find (based on the apparent distribution of cultural materials), and the construction contractor shall immediately notify the project's City representative. Avoidance and preservation in place is the preferred manner of mitigating impacts to cultural resources. This will be accomplished, if feasible, by several alternative means, including:

- Planning construction to avoid archaeological sites and/or other cultural resources; incorporating cultural resources within parks, green-space or other open space; covering archaeological resources; deeding a cultural resource to a permanent conservation easement; or other preservation and protection methods agreeable to consulting parties and regulatory authorities with jurisdiction over the activity.

- Recommendations for avoidance of cultural resources will be reviewed by the City representative, interested culturally affiliated Native American tribes and other appropriate agencies, in light of factors such as costs, logistics, feasibility, design, technology and social, cultural and environmental considerations, and the extent to which avoidance is consistent with project objectives. Avoidance and design alternatives may include realignment within the project site to avoid cultural resources, modification of the design to eliminate or reduce impacts to cultural resources, or modification or realignment to avoid highly significant features within a cultural resource.

- If the discovered cultural resource can be avoided, the construction contractor(s), will install protective fencing outside the site boundary, including a 100-foot buffer area, before construction restarts. Use of temporary and permanent forms of protective fencing will be determined in consultation with Native American representatives from interested culturally affiliated Native American tribes.

- The construction contractor(s) will maintain the protective fencing throughout construction to avoid the site during all remaining phases of construction. The area will be demarcated as an "Environmentally Sensitive Area".

If a cultural resource cannot be avoided, the following performance standard shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of cultural resources:

- Each resource will be evaluated for California Register of Historical Resources-(CRHR) eligibility through application of established eligibility criteria (California Code of Regulations 15064.636), in consultation with consulting Native American Tribes, as applicable.

If a cultural resource is determined to be eligible for listing in the CRHR, the City will avoid damaging effects to the resource in accordance with California PRC Section 21084.3, if feasible. The City shall coordinate the investigation of the find with a qualified archaeologist (meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology) approved by the City. As part of the site investigation and resource assessment, the City and the archaeologist shall assess the significance of the find, make recommendations for further evaluation and treatment as necessary and provide proper management recommendations should potential impacts to the resources be determined by the City to be significant. A written report detailing the site assessment, coordination activities, and management recommendations shall be provided to the City representative by the qualified archaeologist. These recommendations will be documented in the project record.

CR-1c: Implement Procedures in the Event of the Inadvertent Discovery of Human Remains.

If an inadvertent discovery of human remains is made at any time during project-related construction activities or project planning, the City the following performance standards shall be met prior to implementing or continuing actions such as construction, which may result in damage to or destruction of human remains. In accordance with the California Health and Safety Code (HSC), if human remains are encountered during ground-disturbing activities, the City shall immediately halt potentially damaging excavation in the area of the remains and notify the Sacramento County Coroner and a professional archaeologist to determine the nature of the remains. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (HSC Section 7050.5[b]).

If the human remains are of historic age and are determined to be not of Native American origin, the City will follow the provisions of the HSC Section 7000 (et seq.) regarding the disinterment and removal of non-Native American human remains.

If the Coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (HSC Section 7050[c]). After the Coroner's findings have been made, the archaeologist and the NAHC-designated Most Likely Descendant (MLD), in consultation with the landowner, shall determine the ultimate treatment and disposition of the remains. The responsibilities of the City for acting upon notification of a discovery of Native American human remains are identified in California PRC Section 5097.9 et seq.

FINDINGS

All additional significant environmental effects of the project relating to Cultural Resources can be mitigated to a less-than-significant level.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
4. ENERGY Would the project: A) Result in a potentially significant environmental impact due to wasteful. Inefficient, or unnecessary consumption of energy, or wasteful use 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

Energy

Structures built would be subject to Titles 20 and 24 of the California Code of Regulations, which reduce demand for electrical energy by implementing energy-efficient standards for residential and non-residential buildings. The 2035 General Plan includes policies (see 2035 General Plan Energy Resources Goal U 6.1.1) and related policies to encourage energy-efficient technology by offering rebates and other incentives to commercial and residential developers, coordination with local utility providers and recruitment of businesses that research and promote energy conservation and efficiency.

The Master EIR discussed energy conservation and relevant General Plan policies in section 6.3 (page 6-3). The discussion concluded that with implementation of the General Plan policies and energy regulation (e.g., Title 24) development allowed in the General Plan would not result in the inefficient, wasteful or unnecessary consumption of energy.

See also Section 12, below, discussing impacts related to energy. The Master EIR concluded that implementation of state regulation, coordination with energy providers and implementation of General Plan policies would reduce the potential impacts from construction of new energy production or transmission facilities to a less-than-significant level.

ENVIRONMENTAL AND REGULATORY SETTING

Sacramento Municipal Utility District (SMUD) is a community-owned and not-for-profit utility that provides electric services to 900 square miles, including most of Sacramento County (SMUD 2020). Pacific Gas and Electric (PG&E) is an inventory-owned utility that provides electric and natural gas services to approximately 16 million people within a 70,000-square-mile service area in both northern and central California (PG&E 2020). SMUD is the primary electricity supplier, and PG&E is the primary natural gas supplier for the City of Sacramento and the project area.

Energy demand related to the proposed project would include energy directly consumed for space heating and cooling and proposed electric facilities and lighting. Indirect energy consumption would be associated with the generation of electricity at power plants. Transportation-related energy consumption includes the use of fuels and electricity to power cars, trucks, and public transportation. Energy would also be consumed by equipment and vehicles used during project construction and routine maintenance activities.

Energy Policy and Conservation Act, and CAFE Standards

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Under this act, the National Highway Traffic and Safety Administration, is responsible for revising existing fuel economy standards and establishing new vehicle economy standards. The Corporate Average Fuel Economy program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Three Energy Policy Acts have been passed, in 1992, 2005, and 2007, to reduce dependence on foreign petroleum, provide tax incentives for alternative fuels, and support energy conservation.

Energy Policy Act of 1992 and 2005

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs. The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

State of California Energy Efficiency Action Plan

The 2019 California Energy Efficiency Action Plan has three primary goals for the state: double energy efficiency savings by 2030 relative to a 2015 base year (per SB 350), expand energy efficiency in low-income and disadvantaged communities, and reduce greenhouse gas emissions from buildings. This plan provides guiding principles and recommendations on how the state would achieve those goals. These recommendations include:

- identifying funding sources that support energy efficiency programs,
- identifying opportunities to improve energy efficiency through data analysis,
- using program designs as a way to encourage increased energy efficiency on the consumer end,
- improving energy efficiency through workforce education and training, and
- supporting rulemaking and programs that incorporate energy demand flexibility and building decarbonization. (CEC 2019)

California Green Building Standards

The energy consumption of new residential and nonresidential buildings in California is regulated by the state's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Code was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and non-residential buildings. CEC updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions.

The 2019 California Energy Code was adopted by CEC on May 9, 2018 and applies to projects constructed after January 1, 2020. The 2019 California Energy Code is designed to move the State closer to its zero-net energy goals for new residential development. It does so by requiring all new residences to install enough renewable energy to offset all the electricity needs of each residential unit (California Code of Regulations (CCR), Title 24, Part 6, Section 150.1(c)4). CEC estimates that the combination of mandatory on-site renewable energy and prescriptively required energy efficiency standards will result in a 53 percent reduction in new residential construction as compared to the 2016 California Energy Code. Non-residential buildings are anticipated to reduce energy consumption by 30 percent as compared to the 2016 California Energy Code primarily through prescriptive requirements for high-efficiency lighting (CEC 2018). The Energy Code is enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary due to local climatologic, geologic, or topographic conditions, provided that these standards exceed those provided in the California Energy Code.

Transportation-Related Regulations

Various regulatory and planning efforts are aimed at reducing dependency on fossil fuels, increasing the use of alternative fuels, and improving California's vehicle fleet. Senate Bill (SB) 375 aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. CARB, in consultation with the metropolitan planning organizations, provides each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035.

Pursuant to Assembly Bill (AB) 2076 (Chapter 936, Statutes of 2000), CEC and the CARB prepared and adopted a joint agency report in 2003, Reducing California's Petroleum Dependence. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT (CEC and CARB 2003).

AB 1007 (Chapter 371, Statues of 2005) required CEC to prepare the State Alternative Fuels Plan to increase the use of alternative fuels in California.

In January 2012, CARB approved the Advanced Clean Cars program which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017 through 2025. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025.

On August 2, 2018, the National Highway Traffic Safety Administration (NHTSA and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule). Part One of the SAFE Rule revokes a waiver granted by EPA to the State of California under Section 209 of the CAA to enforce more stringent emission standards for motor vehicles than those required by EPA for the explicit purpose of GHG emission reduction, and indirectly, criteria air pollutant and ozone precursor emission reduction. On March 31, 2020, Part Two of the SAFE Rule was published and would amend existing CAFE and tailpipe CO_2 emissions standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026.

GHG Reduction Regulations

Several regulatory measures such as AB 32 and the Climate Change Scoping Plan, EO B-30-15, SB 32, and AB 197 were enacted to reduce GHGs and have the co-benefit of reducing California's dependency on fossil fuels and making land use development and transportation systems more energy efficient.

Renewable Energy Regulations

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California. SB X1-2 mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011-2013 compliance period, at least 65 percent for the 2014-2016 compliance period, and at least 75 percent for 2016 and beyond.

SB 100, signed in September 2018, requires that all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, supply 44 percent of retail sales from renewable resources by December 31, 2024, 50 percent of all electricity sold by December 31, 2026, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. The law also requires that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It represents a major step forward in expanding the production of renewable fuels, reducing dependence on oil, and confronting global climate change. The Energy Independence and Security Act of 2007 increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly five-fold increase over current levels; and reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent.

By addressing renewable fuels and the CAFE standards, the Energy Independence and Security Act of 2007 builds upon progress made by the Energy Policy Act of 2005 in setting out a comprehensive national energy strategy for the 21st century.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

Structures built would be subject to Titles 20 and 24 of the California Code of Regulations, which reduce demand for electrical energy by implementing energy-efficient standards for residential and non-residential buildings. The 2035 General Plan includes policies (see 2035 General Plan Energy Resources Goal U 6.1.1) and related policies to encourage energy-efficient technology by offering rebates and other incentives to commercial and residential developers, coordination with local utility providers and recruitment of businesses that research and promote energy conservation and efficiency.

The Master EIR discussed energy conservation and relevant General Plan policies in section 6.3 (page 6-3). The discussion concluded that with implementation of the General Plan policies and energy regulation (e.g., Title 24) development allowed in the General Plan would not result in the inefficient, wasteful or unnecessary consumption of energy.

See also Section 12, below, discussing impacts related to energy. The Master EIR concluded that implementation of state regulation, coordination with energy providers and implementation of General Plan policies would reduce the potential impacts from construction of new energy production or transmission facilities to a less-than-significant level.

Sacramento Climate Action Plan

The Sacramento CAP was adopted on February 14, 2012 by the Sacramento City Council and was incorporated into the 2035 General Plan. The Sacramento CAP includes GHG emission reduction targets, strategies, and implementation measures developed to help the City reach these targets. Reduction strategies address GHG emissions associated with transportation and land use, energy, water, waste management and recycling, agriculture, and open space.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact is considered significant if the proposed project would:

- result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation; and/or

- conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

ANSWERS TO CHECKLIST QUESTIONS - ENERGY

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

No additional significant environmental effect. Neither federal or State law nor the State CEQA Guidelines establish thresholds that define when energy consumption is considered wasteful, inefficient and unnecessary. Compliance with CCR Title 24 Energy Efficiency Standards would result in energy-efficient buildings. However, compliance with building codes does not adequately address all potential energy impacts during construction and operation. For example, energy would be required to transport people and goods to and from the project site. Energy use is discussed by anticipated use type below.

Construction

Construction of the proposed project would involve the consumption of energy in the form of gasoline and diesel fuel in order to power construction worker vehicle trips, hauling and materials delivery truck trips, and operation of construction equipment. In addition, portable generators may be used on-site in order to produce additional electricity for temporary on-site lighting, welding, and the supply of energy where hookups to the existing electricity grid are not readily available.

Due to the necessity for different stages of construction (e.g. site preparation, grading, and building construction), the operation of construction equipment would occur at different locations and at different times within the project site. Additionally, the use of construction equipment is regulated under the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation aims to reduce emissions from in-use off-road, heavy duty vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles to existing fleets, and requiring fleets to reduce emissions by replacing, retrofitting, or retiring older engines. The use of In-Use Off-Road Diesel Vehicle Regulation would therefore assist in improving vehicle fuel efficiency and reducing GHG emissions.

The 2017 Climate Change Scoping Plan Update, prepared by CARB, outlines examples of local actions that would support the State's climate goals, including municipal code changes, zoning changes, policy directions, and mitigation measures. The CARB Diesel Vehicle Regulation described above, with which the project must comply, would maintain the project's consistency with the intention and recommendations of the 2017 Scoping Plan.

Despite the temporary increase in energy use occurring during construction of the proposed project, the project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy facilities. In addition, construction would be subject to all applicable regulations related to energy conservation and fuel efficiency, which would serve to reduce the temporary increase in energy demand.

Operation

The proposed project would be required to comply with all the relevant provisions outlined in the most recent update of the California Building Standards Commission (CBSC), including the Building Energy Efficiency Standards. Adherence to all applicable regulations included in the City's Climate Action Plan would ensure that the single-family homes resulting from this project would consume energy efficiently through the incorporation of features such as efficient water systems, insulated walls, and high efficacy lighting. Mandatory compliance with the CBSC ensures that building energy use resulting from the completion of this project would not be wasteful, inefficient, or unnecessary. Additionally, SMUD is required to comply with the State's Renewables Portfolio Standard, mandating that investor-owned utilities, electric service providers, and community choice aggregators must meet a 33 percent total procurement of eligible renewable energy resources by 2020 and 60 percent total procurement by 2030. This ensures that a portion of the electricity consumed during project operations would be generated from renewable resources.

See Section 12, Transportation, for discussion surrounding transportation energy use and the VMT associated with the development of the proposed project. Based on the above, construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Thus, implementation of the proposed project would have no additional significant environmental effect related to energy beyond what was previously evaluated in the Master EIR.

B. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No additional significant environmental effect. Structures built as part of the project would be subject to Titles 20 and 24 of the California Code of Regulations, which serve to reduce demand for electrical energy by implementing energy-efficient standards for residential and non-residential buildings. The 2030 General Plan includes policies (see Policies 6.1.10 through 6.1.13) to encourage the spread of energy-efficient technology by offering rebates and other incentives to commercial and residential developers, and recruiting businesses that research and promote energy conservation and efficiency. Policies 6.1.6 through 6.1.8 focus on promoting the use of renewable resources, which would reduce the cumulative impacts associated with use of non-renewable energy sources. In addition, Policies 6.1.5 and 6.1.12 call for the City to work with utility providers and industries to promote new conservation technologies.

The Master EIR evaluated the potential impacts on energy and concluded that the effects would be less than significant (See Impacts 6.11-9 and 6.11-10). The proposed project would not result in any impacts not identified and evaluated in the Master EIR.

MITIGATION MEASURES

None.

FINDINGS

The project would have no additional project-specific environmental effects relating to Energy.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
5. GEOLOGY AND SOILS Would the project allow a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards?			X

ENVIRONMENTAL SETTING

Geological formations of the project vicinity include Basin deposits (Qb), Riverbank Formation (Qr) and Modesto-Riverbank Formations (Qmr) (Wagner et.al 1981).

Surface faulting or ground rupture tends to occur along lines of previous faulting. The nearest fault is the Foothill Fault System, located approximately 24 miles north east of the project area. Since previously identified fault lines are not within or near the project area, the possibility of fault rupture is negligible within the site, but in the event of an earthquake on a nearby fault, the project site could experience ground shaking. The California Geological Survey (CGS) probabilistic seismic hazards maps shows that the seismic ground-shaking hazard for the city is relatively low, and is among the lowest in the State.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact is considered significant if it allows a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

Chapter 4.5 of the Master EIR evaluated the potential effects related to seismic hazards, underlying soil characteristics, slope stability, erosion, existing mineral resources and paleontological resources in the City. Implementation of identified policies in the 2035 General Plan reduced all effects to a less-than-significant level. Policy EC 1.1.1 requires regular review of the City's seismic and geologic safety standards, and Policy EC 1.1.2 requires geotechnical investigations for project sites to identify and respond to geologic hazards, when present.

ANSWERS TO CHECKLIST QUESTIONS – GEOLOGY AND SOILS

A) Would the project allow a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards?

No additional significant environmental effect. The project area is located approximately 22 miles southwest of the nearest active fault and is not within an Alquist-Priolo Earthquake Fault Zone. Therefore, the change of fault rupture within the project area is very low. Since previously identified fault lines are not within or near the project site, the possibility of fault rupture is negligible within the project site, but in the event of an earthquake on a nearby fault, the project site could experience ground shaking.

General Plan Goal EC 1.1 and Policies 1.1.1 to 1.1.3 would ensure that lives and property within the project area protected from seismic hazards. These policies include regular review and enforcement of seismic and geologic safety standards, and geotechnical investigations to determine potential for hazards such as ground rupture, ground shaking, and liquefaction due to seismic events, as well as expansive soils and subsidence problems on sites where these hazards may be present. This impact is within the scope of the General Plan and was analyzed in the Master EIR. By complying with the General Plan policies and City Code, the proposed project would have a less-than-significant impact on exposing life and property to seismic hazards. The project site is relatively level, so there would be no impacts related to the possibility of landslides.

MITIGATION MEASURES

None.

FINDINGS

The project would have no additional project-specific environmental effects relating to Geology and Soils.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
6. HAZARDS Would the project: A) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities?		X	
B) Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials?			X
C) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities?			X

ENVIRONMENTAL AND REGULATORY SETTING

Federal regulations and regulations adopted by the Sacramento Metropolitan Air Quality Management District (SMAQMD) apply to the identification and treatment of hazardous materials during demolition and construction activities. Failure to comply with these regulations respecting asbestos may result in a Notice of Violation being issued by the AQMD and civil penalties under state and/or federal law, in addition to possible action by U.S. EPA under federal law.

Federal law covers a number of different activities involving asbestos, including demolition and renovation of structures (40 CFR § 61.145).

SMAQMD Rule 902 and Commercial Structures

The work practices and administrative requirements of Rule 902 apply to all commercial renovations and demolitions where the amount of Regulated Asbestos-Containing Material (RACM) is greater than:

- 260 lineal feet of RACM on pipes, or
- 160 square feet of RACM on other facility components, or
- 35 cubic feet of RACM that could not be measured otherwise.

The administrative requirements of Rule 902 apply to any demolition of commercial structures, regardless of the amount of RACM. To determine the amount of RACM in a structure, Rule 902 requires that a survey be conducted prior to demolition or renovation unless:

- the structure is otherwise exempt from the rule, or
- any material that has a propensity to contain asbestos (so-called "suspect material") is treated as if it is RACM.

Surveys must be done by a licensed asbestos consultant and require laboratory analysis. Asbestos consultants are listed in the phone book under "Asbestos Consultants." Large industrial facilities may use non-licensed employees if those employees are trained by the U.S. EPA. Questions regarding the use of non-licensed employees should be directed to the AQMD.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact is considered significant if the proposed project would:

- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities;
- expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials; or
- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR evaluated effects of development on hazardous materials, emergency response and aircraft crash hazards. See Chapter 4.6. Implementation of the General Plan may result in the exposure of people to hazards and hazardous materials during construction activities, and exposure of people to hazards and hazardous materials during the life of the General Plan. Impacts identified related to construction activities and operations were found to be less than significant. Policies included in the 2035 general Plan, including PHS 3.1.1 (investigation of sites for contamination) and PHS 3.1.2 (preparation of hazardous materials actions plans when appropriate) were effective in reducing the identified impacts.

ANSWERS TO CHECKLIST QUESTIONS – HAZARDS

A) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities?

Effect can be mitigated to less than significant. Sections of the Right of Way (ROW) adjacent to the project area are unpaved and may contain concentrations of Aerially Deposited Lead (ADL) related to historical automotive emissions. In addition, lead and chromium have historically been used in yellow paint and thermoplastic striping similar to that used along Main Avenue, Rio Linda Boulevard, and the bike trail. A fuel leak associated with the Former Nolan's Self Serve gasoline station's Underground Storage Tank (UST) and dispensing system was reported to the Sacramento County Environmental Management Department (SCEMD) in 1992. In 1999 and 2000 seven USTs and the fuel piping and dispensing facilities were removed, and the gasoline station was closed. Results of environmental investigation conducted at the former gasoline station indicated the presence of petroleum hydrocarbons in the underlying soil and groundwater. Concentrations of total petroleum hydrocarbons are referenced to gasoline (TPHg), and diesel (TPHd), gasoline constituents, and fuel oxygenates were reported in samples collected from onsite soil at depths ranging from 3 to 65 feet. Concentrations of TPHg, benzene, and 1,2-dichloroethane (1,2-DCA) were reported in soil samples collected beneath the former gasoline station from 1999 to 2009 at concentrations up to 9,300 mg/kg, 12 mg/kg, and 0.16 mg/kg, respectively. Concentrations of these constituents reportedly extended horizontally from the location of the former onsite fuel storage and dispensing area to the Main Avenue and Rio Linda Boulevard ROWs and possibly roadways. No remediation activities (other than soil excavated from the former UST pits and piping trenches in 1999 and 2000) have been conducted to remove petroleum hydrocarbons and/or fuel oxygenates from soil beneath the former gasoline station.

With the incorporation of HAZ-1 through HAZ-3 there would be a less-than-significant impact to people in regard to exposure of existing contaminated soil and lead during construction activities.

B) Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials?

No additional significant environmental effect. Review of information available through the USGS and the CGS indicated that nearest ultramafic rock formation which may be associated with naturally occurring asbestos is approximately 19 miles northeast of the project area, along the eastern banks of Folsom Lake (USGS, 2011 and CGS, 2011). Additionally, the project site remains undeveloped; therefore, analysis for lead-containing structures within the project site prior to the removal of these structures is not warranted.

C) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities?

No additional significant environmental effect. Groundwater monitoring conducted since 2003 indicates that generally, TPHg and 1,2-DCA have typically been detected in groundwater samples collected from onsite wells at the former gasoline station. Although TPHg concentrations have not been detected in samples collected from the onsite wells since August 2008, concentrations of 1,2-DCA have been reported in groundwater samples collected as recently as February 2012. Groundwater is reportedly situated at a depth of approximately 57 feet beneath the former gasoline station and flows in a generally southeastern direction, toward the proposed project site. No remediation activities have been conducted to remove TPHg or 1,2-DCA from groundwater.

Although the presence of 1,2-DCA in groundwater beneath and downgradient (southeast) of the former onsite gasoline station represents a Recognized Environmental Conditions (REC) associated with the project area, the proposed construction activities associated with the bridge replacement project are not likely to encounter groundwater, which is situated at a depth of approximately 57 feet. Therefore, assessment of groundwater conditions beneath the Site prior to design and construction of the neighborhood complex is not warranted.

MITIGATION MEASURES

HAZ-1: Prior to ground disturbing activities at the affected areas, ADL testing shall be completed within the unpaved ROW along Main Avenue and Rio Linda Boulevard. Testing shall be completed prior to the start of construction.

The City of Sacramento will perform ADL testing during final design of the project. If testing results are positive for substantial amounts of ADL (pursuant to DTSC standards) Caltrans Standard Special Provisions (SSPs) will be provided outlining proper remediation of the contaminated soils.

SSPs will be required to ensure worker protection from lead exposure and/or whether soil being excavated or disturbed will require handling or disposal as a hazardous material to comply with Federal and State regulations.

HAZ-2: Prior to roadway demolition and excavation, a preliminary investigation shall be completed to assess the potential presence of lead and chromium in the yellow paint and thermoplastic striping used along Main Avenue, Rio Linda Boulevard, and the bike trail that will be renovated as part of the proposed project. The striping investigation should be

conducted to evaluate whether Caltrans SSPs require implementation to ensure worker protection from metals exposure and/or whether the striping being removed will require handling or disposal as hazardous materials to comply with Federal and State regulations.

HAZ-3: Prior to construction ground disturbing activities, a preliminary investigation shall be completed to assess the potential presence of motor vehicle fuels and fuel oxygenates in soil associated with the former onsite gasoline station that will be excavated or disturbed as part of the proposed project. The preliminary soil investigation should be conducted to assess the presence of petroleum hydrocarbons and fuel oxygenates in soil beneath the Main Avenue and Rio Linda Boulevard ROWs and possibly roadways adjacent to the former onsite gasoline station to ensure worker protection from exposure to these constituents and/or whether soil being excavated or disturbed will require handling or disposal as a hazardous material to comply with Federal and State regulations.

FINDINGS

All additional significant environmental effects of the project relating to Hazards can be mitigated to a less-than-significant level.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
7. HYDROLOGY AND WATER QUALITY Would the project: A) Substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the project?			X
B) Substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood ?			X

ENVIRONMENTAL SETTING

The project area is within the Valley-American hydrologic unit and the Lower Sacramento River Watershed. Downstream Magpie Creek is affluent to Steelhead Creek (formerly known as Natomas East Main Drainage Canal (NEMDC)), then confluence with the greater Sacramento River. Magpie Creek is not 303(d) listed and it has no associated TMDL restrictions. (Caltrans, 2010)

The Sacramento River and its tributary channels beneficial uses are municipal and domestic supply, agriculture, industry, recreation, freshwater habitats (migration and spawning of fish), and wildlife habitat according to the Basin Plan for the Sacramento River and San Joaquin River Basins (California Regional Water Quality Control Board, 1998).

The proposed project is not located within one of California's four sole source aquifers. The project is located in Sacramento County which does not have a sole source aquifer.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to hydrology and water quality may be considered significant if construction and/or implementation of the Proposed project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan MEIR:

- substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the Specific Plan or
- substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

Chapter 4.7 of the Master EIR evaluates the potential effects of the 2035 General Plan as they relate to surface water, groundwater, flooding, stormwater and water quality. Potential effects include water quality degradation due to construction activities (Impacts 4.7-1, 4.7-2), and exposure of people to flood risks (Impacts 4.7-3). Policies included in the 2035 General Plan, including a directive for regional cooperation (Policies ER 1.1.2, EC 2.1.1), comprehensive flood management (Policy EC 2.1.23), and construction of adequate drainage facilities with new development (Policy ER 1.1.1 to ER 1.1.10) were identified that the Master EIR concluded would reduce all impacts to a less-than-significant level.

ANSWERS TO CHECKLIST QUESTIONS – HYDROLOGY AND WATER QUALITY

A) Substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the project?

No additional significant environmental effect. As a facet of the proposed project, Main Avenue will be extended approximately 1,100 feet along the north side of the project area from its current terminus at Rio Linda Boulevard to the existing section of Main Avenue at the northeastern corner of the project area. This roadway gap closure would involve building a bridge over Magpie Creek just east of Rio Linda Boulevard. Construction activities would not substantially degrade water quality and would not violate any water quality objectives by the State Water Resources Control Board. BMPs will be put in place to prevent sediment and other contaminants generated by construction from impacting Magpie Creek.

The Regional Water Quality Control Board (RWQCB) permits all regulated construction activities under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity projects with more than 1 acre of ground disturbance. The project's construction activities would be required to comply with the City's Grading, Erosion, and Sediment Control Ordinance. Compliance under this ordinance includes preparation of an erosion and sediment control plan that identifies and implements a variety of best management practices to reduce the potential for erosion or sedimentation.

B) Substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood?

No additional significant environmental effect. Residential lots on the north side of the project area are located within the existing 100-year floodplain of Lower Magpie Creek. The project is located within the Federal Emergency Management Agency (FEMA) Zone X, which represents areas of 0.2% annual chance flood; areas of 1% annual change flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood; however, the City of Sacramento maintains a separate flood model that shows a portion of the project area within the 100-year floodplain. To meet City requirements, housing pads on the north side of the project area will be built on approximately 3 to 5 feet of imported fill to raise the residential structures above the flood surface elevation.

FINDINGS

The project would have no additional project-specific environmental effects relating to Hydrology and Water Quality.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
8. NOISE Would the project: A) Result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases?			X
B) Result in residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to the project?			X
C) Result in construction noise levels that exceed the standards in the City of Sacramento General Plan or Noise Ordinance?		X	
D) Permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction?			X
E) Permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations?			X
F) Permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic?			X

ENVIRONMENTAL SETTING

The noise environment near the proposed project is dominated by traffic sources. Background noise levels are influenced by Rio Linda Boulevard and Main Avenue, existing surrounding residential uses, bike trail activities. Traffic remains the dominant noise source at the project site.

The vicinity of the project area is most similar to that of "normal suburban residential urban," and "normal urban residential." Normal suburban residential urban areas have a typical noise level of 50-55 dBA while Normal Urban Residential has a typical noise level of 60 dBA (Cowan 1984, Hoover and Keith 1996).

A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. Although all land uses are evaluated in this analysis, the focus is on locations of frequent human use that would benefit from a lowered noise level. Accordingly, this impact analysis focuses on locations with defined outdoor activity areas, such as residential backyards.

Short-term noise measurements were taken at outdoor frequent human use areas to capture existing noise levels within the proposed project area. Field measurements were taken at these locations to help determine proper shielding and background noise levels. The location of noise measurements and current and future sensitive noise receivers is shown on Figure 7. Noise Measurement and Receiver Locations. A detailed discussion of current and future noise is provided in Attachment C: Noise Study Report.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts due to noise may be considered significant if construction and/or implementation of the Proposed project would result in the following impacts that remain significant after implementation of General Plan policies:

- result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases;
- result in residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to the project;
- result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance;
- permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction;
- permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations; or
- permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR evaluated the potential for development under the 2035 General Plan to increase noise levels in the community. New noise sources include vehicular traffic, aircraft, railways, light rail and stationary sources. The General Plan policies establish exterior (Policy EC 3.1.1) and interior (Policy EC 3.1.3) noise standards. A variety of policies provide standards for the types of development envisioned in the General Plan. See Policy EC 3.1.8, which requires new mixed-use, commercial, and industrial development to mitigate the effects of noise from operations on adjoining sensitive land use, and Policy 3.1.9, which calls for the City to limit hours of operations for parks and active recreation areas to minimize disturbance to nearby residences. Notwithstanding application of the General Plan policies, noise impacts for exterior noise levels (Impact 4.8-1) and interior noise levels (Impact 4.8-2), and vibration impacts (Impact 4.8-4) were found to be significant and unavoidable.

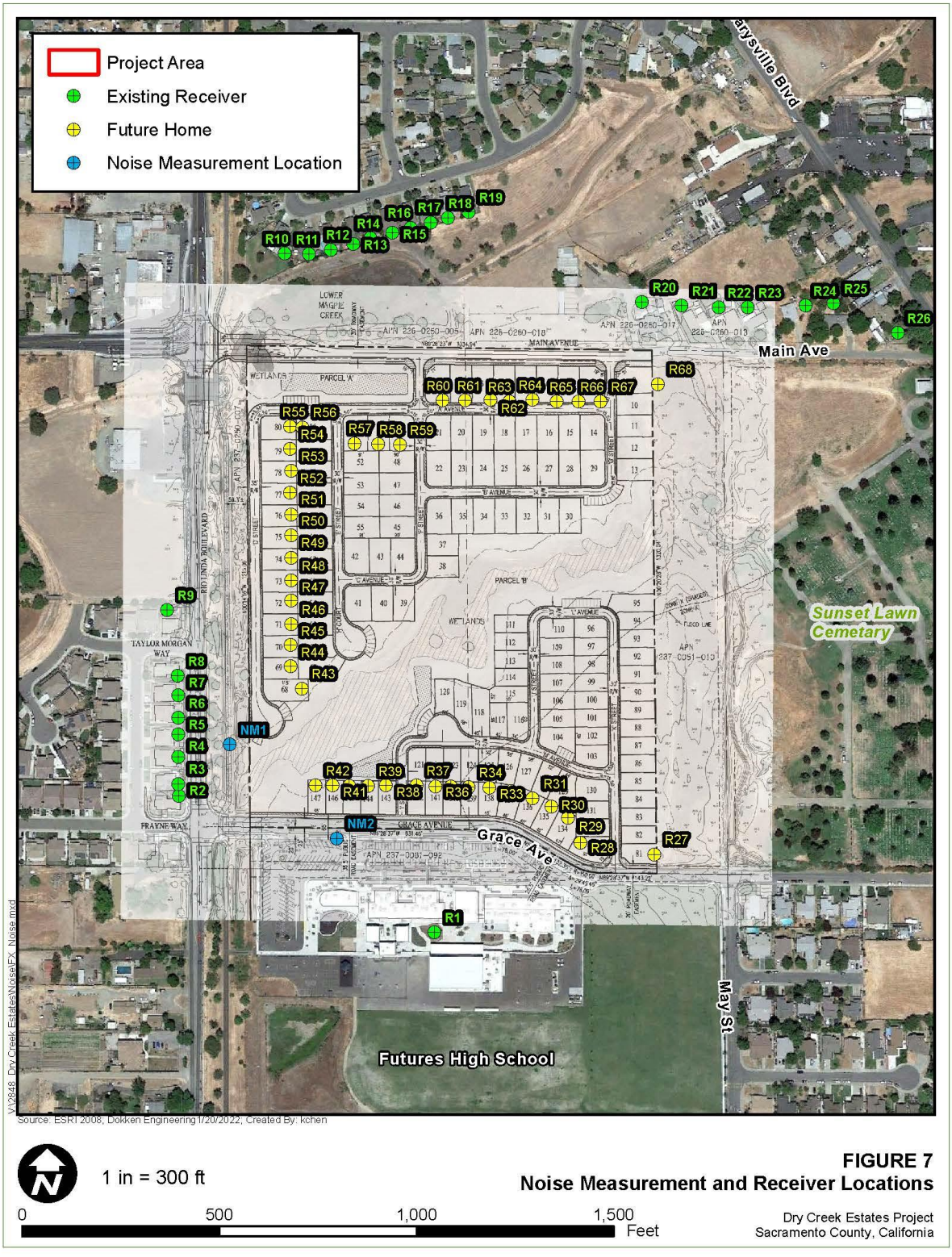

FIGURE 7
Noise Measurement and Receiver Locations

Dry Creek Estates Project
Sacramento County, California

ANSWERS TO CHECKLIST QUESTIONS - NOISE

A) Result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases?

No additional significant environmental effect. The future traffic noise modeling results indicate that exterior noise levels without the proposed project would range between 36.2 dBA CNEL and 63.1 dBA CNEL. Exterior noise levels at R2 through R8 would continue to be exposed to noise levels exceeding the City of Sacramento 60 dBA acceptable noise threshold.

With construction of the proposed project, future exterior noise levels would range between 38.1 dBA and 63.5 dBA CNEL in 2035. Exterior noise levels at receivers R2 through R8 would continue to be exposed to noise levels exceeding the City of Sacramento 60 dBA acceptable noise threshold. However, the project would result in a 0.4 dBA increase in noise at these receivers. Under the City of Sacramento's Exterior Incremental Noise Impact Standards for Noise-Sensitive Uses, this is not considered a significant increase in noise that would require mitigation. No other existing receivers would be exposed to unacceptable noise levels in 2035 with the project. Therefore, the proposed project would not result in noise level increases that would cause an exceedance of the normally acceptable category for land uses in the project area.

Receivers R27 through R68 represent new homes that would be constructed as part of the proposed project along the project site boundary adjacent to Main Avenue, Rio Linda Boulevard, and Grace Avenue. These receivers would be most exposed to traffic noise along these roadways. No receivers would be exposed to exterior noise levels above the upper value of the normally acceptable category for single-family homes. Therefore, impacts are less than significant.

B) Result in residential interior noise levels of 45 dBA Ldn or greater caused by noise level increases due to the project?

No additional significant environmental effect. Standard residential design (with windows closed) will provide approximately 20 dBA of attenuation. The future interior results indicate that the future interior noise levels would range between 20.7 dBA CNEL and 43.5 dBA CNEL with the proposed project. No analyzed receivers would be exposed to residential interior noise levels of 45 dBA Ldn or greater caused by noise level increases due to the project. Impacts would be less than significant.

C) Result in construction noise levels that exceed the standards in the City of Sacramento General Plan or Noise Ordinance?

Effect can be mitigated to less than significant. During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction equipment is expected to generate noise levels ranging from 80 to 89 dB at a distance of 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance. In accordance with Section 8.68.080 of the City of Sacramento Noise Ordinance, Measure **NOI-1** will be required to be implemented by the contractor during construction of the proposed project (refer to Mitigation Measures).

D) Permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction?

No additional significant environmental effect. Operation of the proposed project would not perceptibly increase groundborne vibration or groundborne noise on the proposed project because operation of the proposed project would not involve vibration creating activities such as pile driving.

E) Permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations?

No additional significant environmental effect. There are no new highway or railway operations associated with the construction of the proposed project. In addition, the new residences that would be constructed as part of the proposed project would not be in the vicinity of adjacent highways or rail lines that would cause significant vibratory impacts. The nearest highway is U.S. 80 approximately 0.6 miles to the south, and the nearest railroad is approximately 1.4 miles to the west. There would be no impact.

F) Permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic?

No additional significant environmental effect. No historic buildings or archaeological sites have been identified within the project area. The majority of buildings in the project vicinity that would be impacted by construction are residential structures, none of which are considered extremely fragile, fragile, or historic buildings. None of the buildings occur within 25 feet of where soil compaction would occur. Therefore, no historic buildings or archaeological sites would be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic. There would be no impact.

MITIGATION MEASURES

NOI - 1: The following measures are required to minimize potential noise impacts during construction:

- Do not exceed 86 dBA Lmax at 50 feet from the job site activities from 7 a.m. and 6 p.m. Monday through Saturday, and between the hours of 9 a.m. and 6 p.m. on Sunday.
- Equip an internal combustion engine with the manufacturer recommended exhaust and intake silencers.
- Do not operate an internal combustion engine on the job site without the appropriate muffler or exhaust and intake silencer.

Findings

All additional significant environmental effects of the project relating to Noise can be mitigated to a less-than-significant level.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
9. PUBLIC SERVICES Would the project result in the need for new or altered services related to fire protection, police protection, school facilities, or other governmental services beyond what was anticipated in the 2035 General Plan?			X

ENVIRONMENTAL SETTING

Fire

The City of Sacramento provides fire protection services, to the project area and it is likely that the project would be served by Fire Station 17. Fire Station 17 is located at 1311 Bell Avenue approximately 0.5 miles from the proposed project site. The Fire Department operates approximately 21 stations. Fire stations are located so as to provide a maximum effective service radius of two miles (SGPU DEIR, M-1). This service radius virtually assures blanket coverage of the City. Typical response time to fire calls is four minutes (SGPU DEIR, M-1).

Police

The City of Sacramento provides police protection service approximately 1.5 miles from the project area. The William J. Kinney Police Facility is the police station that would service the project area. It is located at 3550 Marysville Boulevard.

School District

The proposed project site is within the Robla Elementary School District and the Twin Rivers Unified School District. The proposed project area is located approximately 0.5 miles from Norwood Junior High School and across the street from the recently constructed Futures High School. Rio Linda Boulevard would remain open throughout construction; no detour would be implemented due to the proposed project.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact would be considered significant if the project resulted in the need for new or altered services related to fire protection, police protection, school facilities, or other governmental services beyond what was anticipated in the 2035 General Plan.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR evaluated the potential effects of the 2035 General Plan on various public services. These include police, fire protection, schools, libraries and emergency services (Chapter 4.10).

The General Plan provides that adequate staffing levels for police and fire are important for the long-term health, safety and well-being of the community (Goal PHS 1.1, PHS 2.1). The Master EIR concluded that effects of development that could occur under the General Plan would be less than significant.

General plan policies that call for the City to consider impacts of new development on schools (see, for example, Policy ERC 1.1.2 setting forth locational criteria, and Policy ERC 1.1.4 that encourages joint-use development of facilities) reduce impacts on schools to a less-than-significant level. (Impacts 4.10-3, 4) Impacts on library facilities were considered less than significant (Impact 4.10-5).

ANSWERS TO CHECKLIST QUESTIONS – PUBLIC

A) Would the project result in the need for new or altered services related to fire protection, police protection, school facilities, or other governmental services beyond what was anticipated in the 2035 General Plan?

No additional significant environmental effect. The proposed project is consistent with 2035 General Plan land use designations and current zoning. The project would provide additional housing to the area and would result in an increase in population. However, any expected growth has been anticipated in the 2035 General Plan. As a facet of the project, a roadway gap closure will link the two existing termini of Main Avenue, north of the project area. This linkage will assist in facilitating travel for incoming residents and provide additional access routes for emergency services.

The 2035 General Plan identifies specific policies to reduce impacts on government services. As required by the California Fire Code, interior roadways within the project site would be constructed and maintained to allow for fire access, fire hydrants and fire control systems would be provided, and a water flow test would be performed. Additionally, the land developer is considering establishing a special maintenance district to fund maintenance and repairs of a section of the Sacramento Northern Bike Trail adjacent to the project area. This maintenance district would levee fees or property taxes to fund maintenance activities in perpetuity.

The project would not require the need for public facilities or governmental service beyond what has been anticipated in the 2035 General Plan. The project would result in a less-than-significant impact.

MITIGATION MEASURES

None.

FINDINGS

The project would have no additional project-specific environmental effects relating to Public Services.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
10. RECREATION Would the project: A) Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities?		X	
B) Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan?			X

ENVIRONMENTAL SETTING

The North Sacramento Community Plan area is served by a variety of recreational resources. Recreational resources include rivers, ponds, bike trails, and parks maintained by the City of Sacramento. The Sacramento Northern Bike Trail is publicly owned bikeway used as a recreational resource within the project area.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to recreational resources are considered significant if the proposed project would do either of the following:

- cause or accelerate substantial physical deterioration of existing area parks or recreational facilities; or
- create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

Chapter 4.9 of the Master EIR considered the effects of the 2035 General Plan on the City's existing parkland, urban forest, recreational facilities and recreational services. The General Plan identified a goal of providing an integrated park and recreation system in the City (Goal ERC 2.1). New residential development will be required to dedicate land, pay in-lieu fees or otherwise contribute a fair share to the acquisition and development of parks and recreation facilities (Policy ERC 2.2.5). Impacts were considered less than significant after application of the applicable policies (Impacts 4.9-1 and 4.9-2).

ANSWERS TO CHECKLIST QUESTIONS – RECREATION

A) Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities?

Effect can be mitigated to less than significant. The project would not cause or accelerate substantial physical deterioration of existing area parks or recreational facilities. The project proposes the construction of two parks totaling approximately 2 acres to serve the needs of local residents. The two parks included in the site development plan do not quality as public parks and the developer will

pay a pro-rated development fee to fund the creation of parks elsewhere in the City in accordance with the City's 2035 General Plan and the Quimby Act. The development fee payment will mitigate any effects to City parks that may result from the construction of this development project.

In order to install a gap closure of Main Avenue, a road crossing will be installed along the Sacramento Northern Bike Trail at the Main Avenue/Rio Linda Boulevard Intersection, requiring temporary closure of the bike trail. However, the closure will be short term and the land developer is establishing a special maintenance district to fund maintenance and repairs of a section of the Sacramento Northern Bike Trail adjacent to the project area, enhancing the functionality of the trail in perpetuity. This maintenance district would levee fees or property taxes to fund maintenance activities in perpetuity.

B) Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan?

No additional significant environmental effect. The project proposes the construction of two private parks that will service local residents. The proposed project is consistent with 2035 General Plan land use designations and current zoning. Therefore, the project would not create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan. No impact would occur.

MITIGATION MEASURES

None.

FINDINGS

The project would have no additional project-specific environmental effects relating to Recreation.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
11. TRANSPORTATION AND CIRCULATION Would the project: A) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadways, 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

ENVIRONMENTAL SETTING

The project is located east of Rio Linda boulevard and Main Avenue, and north of Grace Avenue. Additionally, the Sacramento Northern Bike trail runs parallel to the project's western side. As a component of this project, Main Avenue will be extended by approximately 1,100 feet along the north side of the project area from its current terminus at Rio Linda Boulevard at the northwestern corner of the project area to the existing section of Main Avenue at the northeastern corner of the project area. This roadway gap closure will alleviate vehicular congestion and provide alternative pathways for travel.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts resulting from changes in transportation or circulation may be considered significant if construction and/or implementation of the Proposed project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan Master EIR:

Freeway Facilities

Caltrans considers the following to be significant impacts.

- off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway;
- project traffic increases that cause any ramp's merge/diverge level of service to be worse than the freeway's level of service;

- project traffic increases that cause the freeway level of service to deteriorate beyond level of service threshold defined in the Caltrans Route Concept Report for the facility;

- or the expected ramp queue is greater than the storage capacity.

Transit

adversely affect public transit operations or fail to adequately provide for access to public transit.

Bicycle Facilities

adversely affect bicycle travel, bicycle paths or fail to adequately provide for access by bicycle.

Pedestrian Circulation

adversely affect pedestrian travel, pedestrian paths or fail to adequately provide for access by pedestrians.

In addition, SB 743, which enacted PRC Section 21099, required changes to the CEQA Guidelines establishing criteria for determining the significance of transportation impacts. In 2015, the City approved a 203

5 General Plan Update which includes SB 743 and using VMT as a metric for evaluating transportation impacts of proposed projects under CEQA. The VMT thresholds for regional projects consider the VMT performance of residential and non-residential components of a project separately. Based on the land use anticipated by the project, efficiency metrics of VMT per capita were analyzed. For residential projects, the regional threshold is defined as total household VMT per capita achieving a 15-percent reduction compared to the regional average.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

Transportation and circulation were discussed in the Master EIR in Chapter 4.12. Various modes of travel were included in the analysis, including vehicular, transit, bicycle, pedestrian and aviation components. Provisions of the 2035 General Plan that provide substantial guidance include Mobility Goal 1.1, calling for a transportation system that is effectively planned, managed, operated and maintained, promotion of multimodal choices (Policy M 1.2.1), support for state highway expansion and management consistent with the Sacramento Area Council of Governments Metropolitan Transportation Plan/Sustainable Communities Strategy (SACOG MTP/SCS) (Policy M 1.5.6) and development that encourages walking and biking (Policy LU 4.2.1).

While the General Plan includes numerous policies that direct the development of the City's transportation system, the Master EIR concluded that the General Plan development would result in significant and unavoidable effects. See Impacts 4.12-3 (roadway segments in adjacent communities, and Impact 4.12-4 (freeway segments).

ANSWERS TO CHECKLIST QUESTIONS – TRANSPORTATION

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

No additional significant environmental effect. The proposed land use of the project is consistent with the existing land use designation in the City's General Plan as well as the North Sacramento

Community Plan. As such, the Master EIR included an analysis of the increase in traffic associated with buildout of the project site. The proposed project would not increase traffic volumes from what has been anticipated in the 2035 General Plan. Therefore, the proposed project would not conflict with a program plan, ordinance or policy addressing the circulation system beyond what has been anticipated by the City per the Master EIR, and a less-than-significant impact would occur.

Sacramento RT 19 services a stop at the intersection of Main Avenue and Rio Linda Boulevard and provides transit opportunities to and from the project site. The project proposes the installation of 135 single-family homes on a previously undeveloped lot; however, any demand added to the transit system could be adequately accommodated by the existing/planned transit system and has been anticipated in the 2035 General Plan and Master EIR. Additionally, the proposed project would not result in removal of any existing bicycle or pedestrian facilities or preclude the implementation of any proposed or existing off-street trails in the vicinity of the project. The proposed project is located adjacent to the Sacramento Northern Bike Trail, which encourages pedestrian and bicycle access for the future residents.

Based on the above, the proposed project would not conflict with a program, plan, ordinance, or policy address the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, implementation of the proposed project would result in no additional environmental effects beyond what was analyzed in the 2035 Master EIR.

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

No additional significant environmental effect. A Technical Memorandum was prepared by Kimley-Horn to assess the project's impact on Vehicle Miles Traveled (VMT). A copy of the memorandum is included as an appendix to this CEQA analysis.

In accordance with SB 743, the Residential VMT screening map developed by the Sacramento Area Council of Governments (SACOG) was used to determine whether the proposed project can be screened from a quantitative VMT analysis. SACOG's screening map is based on data contained within the latest version of its travel demand model, SACSIM19. SACSIM19 has a base year scenario that represents 2016 conditions and was used to set regional efficiency thresholds (VMT/capita or VMT/employee) for both residential and non-residential projects. The SACOG region is segmented into hexagons with an approximately half-mile diameter that are used to determine the VMT efficiency (average VMT/capita or VMT/employee) for each hexagon.

For residential projects, the regional threshold is defined as total household VMT per capita achieving a 15-percent reduction compared to the regional average. Residential VMT per capita for each hexagon is calculated by tallying the total VMT produced for all households located within the hexagon, including VMT for trips that travel outside of the region, and dividing by the total population in the hexagon.

The hexagon that covers the site of the proposed project is hexagon DJ-129, which has an average VMT per capita of 17.49. The VMT per capita regional average calculated by SACOG is 20.82, which results in a threshold of 17.7 VMT per capita (85-percent of the regional average). Thus, the proposed project is assumed to fall below the regional threshold because hexagon DJ-129 also falls below the regional threshold (17.49 versus 17.7).

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

No additional significant environmental effect. The project is anticipated to install multiple local roadways within the proposed residential complex. Additionally, Main Avenue will be extended by approximately 1,100 feet along the north side of the project area from its current terminus at Rio Linda Boulevard at the northwestern corner of the project area to the existing section of Main Avenue at the

northeastern corner of the project area. The extension of Main Avenue will reconfigure the existing Rio Linda Boulevard/Main Avenue intersection to integrate the proposed two-lane roadway. Despite these modifications, the project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), and implementation of the project would result in no additional environmental effects beyond what was analyzed in the 2035 Master EIR.

D) Result in inadequate emergency access?

No additional significant environmental effect. The proposed project would be required to comply with all building, fire, and safety codes and specific development plans would be subject to review and approval by the City's Public Works Department and the Sacramento Fire Department. Required review by the listed departments would ensure that the proposed circulation system for the project site would provide adequate emergency access. In addition, Section 12.20.030 of the City's Municipal Code requires that a construction traffic control plan be prepared and approved prior to the beginning of project construction, to the satisfaction of the City Traffic Engineer and subject to review by all affected agencies. All work performed during construction must conform to the conditions and requirements of the approved plan. The plan would ensure that safe and efficient movement of traffic through the construction work zone(s) is maintained. At a minimum, the plan must include the following:

- Time and day of street closures;
- Proper advance warning and posted signage regarding street closures;
- Provision of driveway access plan to ensure safe vehicular, pedestrian, and bicycle movements;
- Safe and efficient access routes for emergency vehicles;
- Provisions for pedestrian safety;
- Use of manual traffic control when necessary;
- Number of anticipated truck trips, and time of day of arrival and departure of trucks;
- Provision of a truck circulation pattern and staging area with a limitation on the number of trucks that can be waiting and any limitations on the size and type of trucks appropriate for the surrounding transportation network; and
- The plan must be available at the site for inspection by the City representative during all work.

With implementation of the traffic control plan, local roadways and freeway facilities would continue to operate at acceptable operating conditions during construction, and the proposed project would not result in inadequate emergency access to the project site. Therefore, the implementation of the project would result in no additional environmental effects beyond what was analyzed in the 2035 Master EIR.

MITIGATION MEASURES

None.

FINDINGS

The project would have no additional project-specific environmental effects relating to Transportation and Circulation.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
12. TRIBAL CULTURAL RESOURCES Would the project: A) Cause a substantial adverse change in the significance of a tribal cultural resource, as defined in Public Resources Code 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is: i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources code section 5020.1(k) or		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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X	

ENVIRONMENTAL AND REGULATORY SETTING

For thousands of years, Sacramento and the surrounding area has been known to be occupied by Native American groups. Sacramento's indigenous people include the Nisenan people, The Southern Maidu, Valley and Plains Miwok, Patwin Wintun peoples, and the people of the Wilton Rancheria. Tribal cultural resource and archaeological materials, including human burials, have been found throughout the city. Human burials outside of formal cemeteries often occur in prehistoric contexts. Areas of high sensitivity for tribal cultural resources are located within close proximity to the Sacramento and American rivers and other watercourses.

The proposed project area is situated within the lands traditionally occupied by the Valley Nisenan, or Southern Maidu. The language of the Nisenan includes several dialects and is classified within the Maiduan family of the Penutian linguistic stock (Kroeber 1925). Valley Nisenan territory was divided into politically autonomous "triblet" areas, each including several large villages (Moratto 1984). Two important villages

were located near the project area, on the south bank of the American River, Momol, to the west of the project area, and Yalisumni, to the east (Wilson and Towne 1978:388).

Nisenan houses were domed structures covered with earth and tule or grass that measured 10–15 feet in diameter. Brush shelters were used in the summer and at temporary camps during food-gathering rounds. Larger villages often had semi-subterranean dance houses that were covered in earth and tule or brush and had a central smoke hole at the top and an east-facing entrance. Another common village structure was a granary, which was used for storing acorns (Wilson and Towne 1978).

Valley Nisenan people followed a seasonal round of food gathering, as did most California Indians. Food staples included acorns, buckeyes, pine nuts, hazelnuts, various roots, seeds, mushrooms, greens, berries, and herbs. Game was roasted, baked, or dried and included mule deer, elk, antelope, black bear, beaver, squirrels, rabbits, and other small animals and insects. Salmon, whitefish, sturgeon, and suckers, as well as freshwater shellfish, were all caught and eaten (Wilson and Towne 1978).

Euro-American contact with the Nisenan began with infrequent excursions by Spanish explorers and Hudson's Bay Company trappers traveling through the Sacramento-San Joaquin Valley in the early 1800s (Wilson and Towne 1978). With the coming of Russian trappers, Spanish missionaries, and Euro-American settlers, traditional lifeways were threatened by competition for land and resources, and by the introduction of new diseases. The malaria epidemic of 1833 decimated the Valley Nisenan population, killing an estimated 75 percent of the population. The influx of Euro-Americans during the Gold Rush-era further reduced the population due to forced relocations and violent retribution from the miners for real or imagined affronts.

Despite these major and devastating historical setbacks, today many Native Americans in the proposed project area are maintaining traditional cultural practices. Sometimes supported by thriving business enterprises, Tribal groups maintain governments, historic preservation programs, education programs, cultural events, and numerous other programs that sustain a vibrant culture.

Federal

There are no Federal plans, policies, or regulations related to Tribal Cultural Resources that are directly applicable to the proposed project, however Section 106 of the National Historic Preservation Act does require consultation with Native Americans to identify and consider certain types of cultural resources. Cultural resources of Native American origin identified as a result of the identification efforts conducted under Section 106 may also qualify as tribal cultural resources under CEQA.

State

California Environmental Quality Act — Statute and Guidelines. CEQA requires that public agencies that finance or approve public or private projects must assess the effects of the project on tribal cultural resources. Tribal cultural resources are defined in Public Resources Code (PRC) 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 that is (1) listed or determined eligible for listing on the California Register of Historical Resources (CRHR) or a local register, or (2) that are 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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

California Public Resources Code Section 5024. PRC Section 5024.1 establishes the CRHR, which is the authoritative guide for identifying the State's historical resources to indicate what properties are to be protected, if feasible, from substantial adverse change. For a resource to be eligible for the CRHR, it must be more than 50 years old, retain its historic integrity, and satisfy one or more of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

2. Is associated with the lives of persons important in our past.

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

4. Has yielded, or may be likely to yield, information important in prehistory or history.

Data Sources/Methodology

Under PRC section 21080.3.1 and 21082.3, the City must consult with tribes traditionally and culturally affiliated with the project area that have requested formal notification and responded with a request for consultation. The parties must consult in good faith. Consultation is deemed concluded when the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource when one is present or when a party concludes that mutual agreement cannot be reached. Mitigation measures agreed on during the consultation process must be recommended for inclusion in the environmental document.

On January 23, 2018, a search of the Sacred Lands Database was requested from the Native American Heritage Commission (NAHC). A response was received on January 31, 2018, indicating that Sacred Sites have been identified in the general vicinity (within the USGS quad, township, ranges, and sections of the project) but specific location were not provided. Two tribes were listed as points of contact regarding these sites: the Ione Band of Miwok Indians (Ione), and United Auburn Indian Community (UAIC). Three additional federally listed tribes were indicated for consultation: Buena Vista Rancheria of Me-Wuk Indians (Buena Vista), Shingle Springs Band of Miwok Indians (Shingle Springs), and Wilton Rancheria (Wilton).

In response to the City's notification of the project to UAIC, UAIC conducted a records search for the identification of Tribal Cultural Resources for this project which included a review of pertinent literature and historic maps, and a records search using UAIC's Tribal Historic Information System (THRIS). UAIC's THRIS database is composed of UAIC's areas of oral history, ethnographic history, and places of cultural and religious significance, including UAIC Sacred Lands that are submitted to the Native American Heritage Commission (NAHC). The THRIS resources shown in this region also include previously recorded indigenous resources identified through the California Historic Resources Information System Center (CHRIS) as well as historic resources and survey data.

Native American Consultation

Notification of the project and an invitation for consultation was sent out to the tribes that have previously requested to receive such notification pursuant to PRC 20180.3.1 and AB 52. Two tribes responded declining to consult (UAIC requesting to have inadvertent discoveries mitigation), one tribe didn't respond, and one tribe responded neither requesting or declining consultation, but rather describing resources near the project site and requesting tribal monitors to be present during all ground disturbing activities. Also describing that the tribes preferred method of treatment of cultural resources is preservation in place.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, a tribal cultural resource is considered to be a significant resource if the resource is: 1) listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources; or 2) the resource has been 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. For purposes of this Initial Study, impacts on tribal cultural resources may be considered significant if construction and/or implementation of the proposed project would result in the following:

- cause a substantial change in the significance of a tribal cultural resource as defined in Public Resources Code 21074.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR evaluated the potential effects of development under the 2035 General Plan on prehistoric and historic resources (see Master EIR Chapter 4.4 and Appendix C – Background Report, B. Cultural Resources Appendix), but did not specifically address tribal cultural resources because that resource type had not yet been defined in CEQA at the time the Master EIR was adopted. The Master EIR identified significant and unavoidable effects on historic resources and archaeological resources, some of which could be tribal cultural resources as defined Public Resources Code 21074. Ground-disturbing activities resulting from implementation of development under the 2035 General Plan could affect the integrity of an archaeological site (which may be a tribal cultural resource), thereby causing a substantial change in the significance of the resource. General plan policies identified as reducing such effects on cultural resources that may also be tribal cultural resources include identification of resources on project sites (Policy HCR 2.1.1); implementation of applicable laws and regulations (Policy HCR 2.1.2); consultation with appropriate organizations and individuals including the Native American Heritage Commission and implementation of their consultation guidelines (Policy HCR 2.1.3); enforcement programs to promote the maintenance, rehabilitation, preservation, and interpretation of the City's historic resources (Policy HCR 2.1.4); listing of qualified historic resources under appropriate national, State, and local registers (Policy HCR 2.1.5); consideration of historic and cultural resources in planning studies (Policy HCR 2.1.6); enforcement of compliance with local, State, and federal historic and cultural preservation requirements (Policy HCR 2.1.8); and early consultation with owners and land developers to minimize effects (Policy HCR 2.1.10).

Of particular relevance to this project are policies that ensure compliance with protocol that protect or mitigate impacts to archaeological resources (Policy HCR 2.1.16) and that encourage preservation and minimization of impacts on cultural resources (Policy HCR 2.1.17).

MITIGATION MEASURES FROM 2035 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None. As noted above, the Master EIR did not specifically address tribal cultural resources but did address archaeological resources and other cultural resources and noted that because the presence of significant archaeological resources is typically unknown until the resource is uncovered, which often occurs during ground disturbing activities, adverse effects may occur prior to discovery of the archaeological resources. Therefore, although laws and regulations combined with General Plan policy would substantially reduce impacts to these resources once they are discovered, the initial impacts that might occur prior to discovery would be considered potentially significant and that protection of all important archaeological resources from damage or destruction cannot be assured.

ANSWER TO CHECKLIST QUESTIONS – TRIBE

Question A-i, ii

As described previously, the existing record searches and surveys did not identify tribal cultural resources on the project site. Through communication with local Native American tribe, resources are known within the project region and activities of tribes occurred throughout the region. As a result, there is the potential for ground disturbing activities to unearth previously unknown tribal cultural resources resulting in unanticipated discoveries. This could result in a potentially significant environmental effect. With the implementation of mitigation measures TCR-1a, 1b, 1c, and TCR-2, the impact would be reduced to a less-than-significant level.

MITIGATION MEASURES –

TCR-1a: Tribal Cultural Resources Sensitivity and Awareness Training Program Prior to Ground-Disturbing Activities

The City shall require the applicant/contractor to provide a tribal cultural resources sensitivity and awareness training program (Worker Environmental Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The WEAP will be developed in coordination with culturally affiliated Native American tribes. The WEAP shall be conducted before any project-related construction activities begin at the project site. The WEAP will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations.

The WEAP will also describe appropriate avoidance and impact minimization measures for tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential tribal cultural resources are encountered. The WEAP will emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and will discuss appropriate behaviors and responsive actions, consistent with Native American tribal values.

TCR-1b: In the Event that Tribal Cultural Resources Are Discovered During Construction, Implement Avoidance and Minimization Measures to Avoid Significant Impacts and Procedures to Evaluate Resources.

If tribal cultural resources (such as structural features, unusual amounts of bone or shell, artifacts, or human remains) are encountered at the project site during construction, work shall be suspended within 100 feet of the find (based on the apparent distribution of cultural materials), and the construction contractor shall immediately notify the project's City representative. Avoidance and preservation in place is the preferred manner of mitigating impacts to tribal cultural resources. This will be accomplished, if feasible, by several alternative means, including:

- Planning construction to avoid tribal cultural resources, archaeological sites and/or other cultural resources; incorporating cultural resources within parks, green-space or other open space; covering archaeological resources; deeding a cultural resource to a permanent conservation easement; or other preservation and protection methods agreeable to consulting parties and regulatory authorities with jurisdiction over the activity.

- Recommendations for avoidance of tribal cultural resources will be reviewed by the City representative, interested culturally affiliated Native American tribes and other appropriate agencies, in light of factors such as costs, logistics, feasibility, design, technology and social, cultural and environmental considerations, and the extent to which avoidance is consistent with project objectives. Avoidance and design alternatives may include realignment within the project site to avoid tribal cultural resources, modification of the design to eliminate or reduce impacts tribal cultural resources, or modification or realignment to avoid highly significant features within a tribal cultural resource.

- Native American representatives from interested culturally affiliated Native American tribes will be notified to review and comment on these analyses and shall have the opportunity to meet with the City representative and its representatives who have technical expertise to identify and recommend feasible avoidance and design alternatives, so that appropriate and feasible avoidance and design alternatives can be identified.

- If the discovered tribal cultural resource can be avoided, the construction contractor(s), will install protective fencing outside the site boundary, including a 100-foot buffer area, before construction restarts. The boundary of a tribal cultural resource will be determined in consultation with interested culturally affiliated Native American tribes and tribes will be notified to monitor the installation of fencing. Use of temporary and permanent forms of protective fencing will be determined in consultation with Native American representatives from interested culturally affiliated Native American tribes.

- The construction contractor(s) will maintain the protective fencing throughout construction to avoid the site during all remaining phases of construction. The area will be demarcated as an “Environmentally Sensitive Area”.

If a tribal cultural resource cannot be avoided, the following performance standard shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of tribal cultural resources:

- Each resource will be evaluated for California Register of Historical Resources-(CRHR) eligibility through application of established eligibility criteria (California Code of Regulations 15064.636), in consultation with consulting Native American Tribes, as applicable.

If a tribal cultural resource is determined to be eligible for listing in the CRHR, the City will avoid damaging effects to the resource in accordance with California PRC Section 21084.3, if feasible. The City shall coordinate the investigation of the find with a qualified archaeologist (meeting the Secretary of the Interior’s Professional Qualifications Standards for Archeology) approved by the City and with interested culturally affiliated Native American tribes that respond to the City’s notification. As part of the site investigation and resource assessment, the City and the archaeologist shall consult with interested culturally affiliated Native American tribes to assess the significance of the find, make recommendations for further evaluation and treatment as necessary and provide proper

management recommendations should potential impacts to the resources be determined by the City to be significant. A written report detailing the site assessment, coordination activities, and management recommendations shall be provided to the City representative by the qualified archaeologist. These recommendations will be documented in the project record. For any recommendations made by interested culturally affiliated Native American tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

Native American representatives from interested culturally affiliated Native American Tribes and the City representative will also consult to develop measures for long-term management of any discovered tribal cultural resources. Consultation will be limited to actions consistent with the jurisdiction of the City and taking into account ownership of the subject property. To the extent that the City has jurisdiction, routine operation and maintenance within tribal cultural resources retaining tribal cultural integrity shall be consistent with the avoidance and minimization standards identified in this mitigation measure.

If the City determines that the project may cause a significant impact to a tribal cultural resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to the resource. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which an impact conclusion of less-than significant may be reached:

- Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treat the resource with culturally appropriate dignity taking into account the Tribal cultural values and meaning of the resource, including, but not limited to, the following:
- Protect the cultural character and integrity of the resource.
- Protect the traditional use of the resource.
- Protect the confidentiality of the resource.
- Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.
- Protect the resource.

TCR-1c: Implement Procedures in the Event of the Inadvertent Discovery of Human Remains. If an inadvertent discovery of human remains is made at any time during project-related construction activities or project planning, the City the following performance standards shall be met prior to implementing or continuing actions such as construction, which may result in damage to or destruction of human remains. In accordance with the California Health and Safety Code (HSC), if human remains are encountered during ground-

disturbing activities, the City shall immediately halt potentially damaging excavation in the area of the remains and notify the Sacramento County Coroner and a professional archaeologist to determine the nature of the remains. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (HSC Section 7050.5[b]).

If the human remains are of historic age and are determined to be not of Native American origin, the City will follow the provisions of the HSC Section 7000 (et seq.) regarding the disinterment and removal of non-Native American human remains.

If the Coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (HSC Section 7050[c]). After the Coroner's findings have been made, the archaeologist and the NAHC-designated Most Likely Descendant (MLD), in consultation with the landowner, shall determine the ultimate treatment and disposition of the remains. The responsibilities of the City for acting upon notification of a discovery of Native American human remains are identified in California PRC Section 5097.9 et seq.

TCR-2: The applicant shall contract for a Native American Tribal Monitor (monitor) at the project site. The monitor shall possess the knowledge, skills, abilities, and experience established by the NAHC's Guidelines for Native American Monitors.

The applicant shall provide 48-hour advance notice to the monitor prior to initial site excavation. Reasonable access to the project site shall be provided to the monitor during initial ground-disturbing activities and may be extended should the area be determined to require monitoring of deeper sediments. During the course of the monitoring, the applicant and monitor may adjust the frequency—from continuous to intermittent—based on the conditions and professional judgment regarding the potential to impact cultural and tribal cultural resources.

The monitor will be compensated for his/her time. The mechanism for reimbursing the tribal monitor will be at the discretion of the applicant/developer, and may include: individual monitor being hired by the applicant's contractor as a temporary/on-call worker; or the monitor being temporarily employed through a staffing agency.

FINDINGS

With the implementation of the mitigation measures listed above, impacts related to Tribal Cultural Resources would be less than significant.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
13. UTILITIES AND SERVICE SYSTEMS Would the project: A) Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments?			X
B) Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts?			X

ENVIRONMENTAL SETTING

Existing utilities within the project limits include natural gas, water, sewer, and telecommunications service. Natural gas is provided by Pacific Gas and Electric Company (PG&E). The City provides municipal water service, and wastewater collection (sewer) within the project area. Telecommunications services in the project area are provided by AT&T.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact would be considered significant if the project resulted in the need for new or altered services related to fire protection, police protection, or school facilities beyond what was anticipated in the 2035 General Plan:

- result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments or
- require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES

The Master EIR evaluated the effects of development under the 2035 General Plan on water supply, sewer and storm drainage, solid waste, electricity, natural gas and telecommunications. See Chapter 4.11.

The Master EIR evaluated the impacts of increased demand for water that would occur with development under the 2035 General Plan. Policies in the General Plan would reduce the impact generally to a less-than-significant level (see Impact 4.11-1) but the Master EIR concluded that the potential increase in demand for potable water in excess of the City's existing diversion and treatment capacity, and which could require construction of new water supply facilities, would result in a significant and unavoidable effect (Impact 4.11-2). The potential need for expansion of wastewater treatment facilities was identified as having a less-than-significant effect (Impact 4.11-4). Impacts on solid waste facilities were less than significant (Impact 4.11-5). Implementation of energy efficient standards as set forth in Titles 20 and 24 of the California

Code of Regulations for residential and non-residential buildings, would reduce effects for energy to a less-than-significant level.

ANSWERS TO CHECKLIST QUESTIONS – UTILITIES

A) Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments?

No additional significant environmental effect. The project would result in the installation of 135 single-family homes that would require hookups to the City's existing utilities and service systems. The project is consistent with the land use designation outlined in the City's 2035 General Plan; therefore, the utilities demand required by the project would not exceed the amount anticipated for the buildout of the Planning Area evaluated in the Master EIR.

Wastewater

The proposed project will be provided wastewater collection and treatment services by the Sacramento Area Sewer District (SASD) and the Sacramento Regional County Sanitation District (SRCSD). Wastewater produced by the proposed project would be collected in the G302 sewer basin of the SASD system and would flow into the SRCSD interceptor system. Sewage would be conveyed to the Sacramento Regional Wastewater Treatment Plant (SRWTP) located in Elk Grove, where wastewater is processed. The existing capacity of the SRWTP is 181 million gallons per day (mgd); according to the SRWTP's NPDES Permit (No. CA0077682) adopted in 2016, the average dry weather flow at that time was approximately 120 mgd (RWQCB 2016). Therefore, adequate capacity exists to treat the additional production of wastewater that will be generated by the proposed project. Policy U 4.1.1 in the Master EIR requires the City to ensure that all new drainage facilities are adequality sized to accommodate stormwater runoff.

Water Supply

The City is responsible for the provision and maintenance of water service for the project site. The City's 2020 Urban Water Management Plan (UWMP) analyzed the water supply, water demand, and water shortage contingency planning for the City's service area, which would include the project site. According to the 2020 UWMP, under all drought conditions, the City possesses sufficient water supply entitlements to meet the demands of the City's customers up to the year 2035. In order to calculate population projections, an assumption of a continued growth rate consistent with the 2035 General Plan was used (UWMP 2020). Therefore, the population growth associated with the development of the project site as a residential complex was included within the growth projections evaluated in the 2020 UWMP.

As such, the proposed project is consistent with land use and zoning regulations and would not result in an increase in demand from what has already been anticipated in the City's Master EIR. Adequate capacity to serve the proposed project's demands.

Solid Waste

Solid waste collected at residential uses in the area is currently disposed of at the Kiefer Landfill. Kiefer Landfill, located at 12701 Kiefer Boulevard in Sloughhouse, California, is the primary location for the disposal of waste by the City. According to the Master EIR, the landfill is permitted to accept up to 10,815 tons per day and the current peak and average daily disposal is substantially lower than the permitted amount. The landfill is anticipated to be capable of adequately serving the area, including the anticipated population growth, until the year 2065. Operational waste management resulting from the proposed project is not anticipated to significantly contribute to the Kiefer Landfill's remaining daily

capacity. Therefore, the proposed project's operational waste generation could be accommodated by the existing capacity of Kiefer Landfill.

B) Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts?

No additional significant environmental effect. Because adequate capacity exists to serve the project's demands in addition to existing commitments, no construction of new utilities or expansion of existing facilities would be required. Implementation of the proposed project would result in no additional environmental effects beyond what was analyzed in the 2035 Master EIR.

MITIGATION MEASURES

None.

FINDINGS

The project would have no additional project-specific environmental effects relating to Utilities and Service Systems.

MANDATORY FINDINGS OF SIGNIFICANCE

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
14. MANDATORY FINDINGS OF SIGNIFICANCE A.) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		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

ANSWERS TO CHECKLIST QUESTIONS – MANDATORY FINDINGS

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

Effect can be mitigated to less than significant. The project is anticipated to have permanent impacts to wetland habitat located within the project area; however, project design provides for the conservation of a large wetland swale as an open corridor bisecting the residential community. Additionally, the implementation of avoidance and minimization measures will reduce project impacts and protect local sensitive habitat resources. The proposed project does have the potential to impact previously undiscovered cultural resources and/or human remains, and therefore will comply with cultural resource policies outlined in the 2035 General Plan (please refer to the cultural

resources section). With implementation of the mitigation measures identified in this IS, compliance with City of Sacramento 2035 General Plan policies, and application of standard BMPs during construction, development of the proposed project would not result in any of the following: 1) degrade the quality of the environment; 2) substantially reduce or impact the habitat of fish or wildlife species; 3) cause fish or wildlife populations to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history or prehistory. Therefore, the proposed project's impact would be mitigated to have less than significant effects and no additional significant environmental effects would occur with implementation of the proposed project.

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.)

No additional significant environmental effect. The proposed project is consistent with the 2035 General Plan land use designation. As such, the proposed project is anticipated by the City per the General Plan and is included in the cumulative analysis of City development that is outlined in the Master EIR. The implementation of project-specific avoidance and minimization measures identified in this Initial Study will reduce the proposed project's potential contribution to cumulative impacts. The potential impacts of the proposed project would be individually limited and would not be cumulatively considerable; additionally, any environmental impacts resulting from the project will be reduced to a less-than-significant level with mitigation. Therefore, the proposed project would not contribute to cumulative impacts in the City of Sacramento and no additional significant environmental effects would occur with implementation of the proposed project.

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

No additional significant environmental effect. The project would not result in either direct or indirect substantial adverse effects on human beings. Hazards and noise can be reduced to less-than-significant levels through implementation of the mitigation measures included in this study.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would potentially be affected by this project.

	Aesthetics	X	Hazards
X	Air Quality	X	Noise
X	Biological Resources		Public Services
X	Cultural Resources		Recreation
	Energy and Mineral Resources		Transportation/Circulation
	Geology and Soils	X	Tribal Cultural Resources
X	Hydrology and Water Quality		Utilities and Service Systems

	None Identified

SECTION V - DETERMINATION

On the basis of the initial study:

I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2035 General Plan Master EIR; (b) the proposed project is consistent with the 2035 General Plan land use designation and the permissible densities and intensities of use for the project site; (c) that the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR are adequate for the proposed project; and (d) the proposed project will have additional significant environmental effects not previously examined in the Master EIR. A Mitigated Negative Declaration will be prepared. Mitigation measures from the Master EIR will be applied to the project as appropriate, and additional feasible mitigation measures and alternatives will be incorporated to revise the proposed project before the negative declaration is circulated for public review, to avoid or mitigate the identified effects to a level of insignificance. (CEQA Guidelines Section 15178(b))

Ron Bess for Scott Johnson — July 12, 2022

Signature — Date

Scott Johnson

Printed Name

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ATTACHED APPENDICES:

APPENDIX A: Air Quality Emissions Model – CalEEMod.2016.3.1

APPENDIX B: Biological Resources Memorandum

APPENDIX C: Noise Study Report

APPENDIX D: Vehicle Miles Traveled Memorandum

APPENDIX A: Air Quality Emissions Model – CalEEMod.2016.3.1

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Dry Creek Estates Project

Sacramento Valley Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	6.11	Acre	6.11	266,151.60	0
Single Family Housing	67.00	Dwelling Unit	5.88	256,275.00	192
Single Family Housing	80.00	Dwelling Unit	9.09	396,000.00	229

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	65
Climate Zone	6			**Operational Year**	2025
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Imported inputs

Land Use - Per Dry Creek Tentative Site Plan
Parking = new roads

Construction Phase -

Grading -

Vehicle Trips - inported result

Woodstoves - No woodstoves in City Sacramento for new housing
SMAQMD BMP1 - Projects shall be dsigned and constructed without Natural Gas Infrastructure

Energy Use - input data

Land Use Change -

Construction Off-road Equipment Mitigation -

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Waste Mitigation -

Fleet Mix - imported inputs

Stationary Sources - Emergency Generators and Fire Pumps -

Trips and VMT - Based on Project input

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	120,600.00	256,275.00
tblLandUse	LandUseSquareFeet	144,000.00	396,000.00
tblLandUse	LotAcreage	21.75	5.88
tblLandUse	LotAcreage	25.97	9.09
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.029
tblProjectCharacteristics	CO2IntensityFactor	357.98	590.31
tblProjectCharacteristics	N2OIntensityFactor	0.004	0.006
tblTripsAndVMT	HaulingTripNumber	0.00	3,125.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.2509	2.3952	2.4243	6.4400e-003	0.4197	0.0898	0.5095	0.1580	0.0838	0.2418	0.0000	582.7361	582.7361	0.0918	0.0294	593.7797
2025	4.3415	1.7819	2.3930	5.6300e-003	0.1872	0.0645	0.2517	0.0508	0.0606	0.1114	0.0000	507.2026	507.2026	0.0697	0.0210	515.2003
Maximum	**4.3415**	**2.3952**	**2.4243**	**6.4400e-003**	**0.4197**	**0.0898**	**0.5095**	**0.1580**	**0.0838**	**0.2418**	**0.0000**	**582.7361**	**582.7361**	**0.0918**	**0.0294**	**593.7797**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.2509	2.3952	2.4243	6.4400e-003	0.2771	0.0898	0.3669	0.0951	0.0838	0.1789	0.0000	582.7357	582.7357	0.0918	0.0294	593.7793
2025	4.3415	1.7819	2.3930	5.6300e-003	0.1872	0.0645	0.2517	0.0508	0.0606	0.1114	0.0000	507.2023	507.2023	0.0697	0.0210	515.1999
Maximum	**4.3415**	**2.3952**	**2.4243**	**6.4400e-003**	**0.2771**	**0.0898**	**0.3669**	**0.0951**	**0.0838**	**0.1789**	**0.0000**	**582.7357**	**582.7357**	**0.0918**	**0.0294**	**593.7793**

Dry Creek Estates Project - Sacramento Valley Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	23.50	0.00	18.74	30.15	0.00	17.82	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2024	5-31-2024	1.2208	1.2208
2	6-1-2024	8-31-2024	0.6073	0.6073
3	9-1-2024	11-30-2024	0.6052	0.6052
4	12-1-2024	2-28-2025	0.5758	0.5758
5	3-1-2025	5-31-2025	0.5708	0.5708
6	6-1-2025	8-31-2025	0.5685	0.5685
7	9-1-2025	9-30-2025	0.1854	0.1854
		Highest	1.2208	1.2208

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	21.4566	0.3728	23.8618	0.0413		3.1988	3.1988		3.1988	3.1988	303.6896	129.1460	432.8356	0.2820	0.0239	447.0031
Energy	0.0188	0.1603	0.0682	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	496.8318	496.8318	0.0189	6.5700e-003	499.2596
Mobile	0.7158	1.0499	6.5199	0.0136	1.4007	0.0122	1.4129	0.3749	0.0115	0.3864	0.0000	1,288.6285	1,288.6285	0.0823	0.0673	1,310.7522
Waste						0.0000	0.0000		0.0000	0.0000	30.3776	0.0000	30.3776	1.7953	0.0000	75.2592
Water						0.0000	0.0000		0.0000	0.0000	3.0385	19.5352	22.5738	0.3131	7.5700e-003	32.6551
Total	**22.1912**	**1.5830**	**30.4499**	**0.0559**	**1.4007**	**3.2240**	**4.6247**	**0.3749**	**3.2232**	**3.5981**	**337.1057**	**1,934.1415**	**2,271.2472**	**2.4914**	**0.1054**	**2,364.9292**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8188	0.0126	1.0905	6.0000e-005		6.0500e-003	6.0500e-003		6.0500e-003	6.0500e-003	0.0000	1.7830	1.7830	1.7100e-003	0.0000	1.8257
Energy	0.0188	0.1603	0.0682	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	496.8318	496.8318	0.0189	6.5700e-003	499.2596
Mobile	0.7158	1.0499	6.5199	0.0136	1.4007	0.0122	1.4129	0.3749	0.0115	0.3864	0.0000	1,288.6285	1,288.6285	0.0823	0.0673	1,310.7522
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	3.0385	19.5352	22.5738	0.3131	7.5700e-003	32.6551
Total	**3.5533**	**1.2228**	**7.6786**	**0.0147**	**1.4007**	**0.0312**	**1.4319**	**0.3749**	**0.0305**	**0.4054**	**3.0385**	**1,806.7785**	**1,809.8171**	**0.4159**	**0.0815**	**1,844.4926**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**83.99**	**22.76**	**74.78**	**73.74**	**0.00**	**99.03**	**69.04**	**0.00**	**99.05**	**88.73**	**99.10**	**6.58**	**20.32**	**83.31**	**22.67**	**22.01**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.3 Vegetation

Vegetation

	CO2e
Category	MT
Vegetation Land Change	0.0000
Total	**0.0000**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2024	3/28/2024	5	20	
2	Site Preparation	Site Preparation	3/29/2024	4/11/2024	5	10	
3	Grading	Grading	4/12/2024	5/30/2024	5	35	
4	Building Construction	Building Construction	5/31/2024	10/30/2025	5	370	
5	Paving	Paving	10/31/2025	11/27/2025	5	20	
6	Architectural Coating	Architectural Coating	11/28/2025	12/25/2025	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 105

Acres of Paving: 6.11

Dry Creek Estates Project - Sacramento Valley Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Residential Indoor: 1,320,857; Residential Outdoor: 440,286; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 15,969 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	165.00	59.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	33.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0224	0.2088	0.1971	3.9000e-004		9.6000e-003	9.6000e-003		8.9200e-003	8.9200e-003	0.0000	33.9961	33.9961	9.5100e-003	0.0000	34.2338
Total	**0.0224**	**0.2088**	**0.1971**	**3.9000e-004**		**9.6000e-003**	**9.6000e-003**		**8.9200e-003**	**8.9200e-003**	**0.0000**	**33.9961**	**33.9961**	**9.5100e-003**	**0.0000**	**34.2338**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.6000e-004	3.4400e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9333	0.9333	3.0000e-005	3.0000e-005	0.9415
Total	**4.2000e-004**	**2.6000e-004**	**3.4400e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9333**	**0.9333**	**3.0000e-005**	**3.0000e-005**	**0.9415**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0224	0.2088	0.1971	3.9000e-004		9.6000e-003	9.6000e-003		8.9200e-003	8.9200e-003	0.0000	33.9960	33.9960	9.5100e-003	0.0000	34.2338
Total	**0.0224**	**0.2088**	**0.1971**	**3.9000e-004**		**9.6000e-003**	**9.6000e-003**		**8.9200e-003**	**8.9200e-003**	**0.0000**	**33.9960**	**33.9960**	**9.5100e-003**	**0.0000**	**34.2338**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.6000e-004	3.4400e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9333	0.9333	3.0000e-005	3.0000e-005	0.9415
Total	**4.2000e-004**	**2.6000e-004**	**3.4400e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9333**	**0.9333**	**3.0000e-005**	**3.0000e-005**	**0.9415**

3.3 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1359	0.0917	1.9000e-004		6.1500e-003	6.1500e-003		5.6600e-003	5.6600e-003	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**0.0133**	**0.1359**	**0.0917**	**1.9000e-004**	**0.0983**	**6.1500e-003**	**0.1044**	**0.0505**	**5.6600e-003**	**0.0562**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.6000e-004	2.0600e-003	1.0000e-005	7.1000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5600	0.5600	2.0000e-005	2.0000e-005	0.5649
Total	**2.5000e-004**	**1.6000e-004**	**2.0600e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.1000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5600**	**0.5600**	**2.0000e-005**	**2.0000e-005**	**0.5649**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1359	0.0917	1.9000e-004		6.1500e-003	6.1500e-003		5.6500e-003	5.6500e-003	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**0.0133**	**0.1359**	**0.0917**	**1.9000e-004**	**0.0442**	**6.1500e-003**	**0.0504**	**0.0227**	**5.6500e-003**	**0.0284**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.6000e-004	2.0600e-003	1.0000e-005	7.1000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5600	0.5600	2.0000e-005	2.0000e-005	0.5649
Total	**2.5000e-004**	**1.6000e-004**	**2.0600e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.1000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5600**	**0.5600**	**2.0000e-005**	**2.0000e-005**	**0.5649**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1611	0.0000	0.1611	0.0639	0.0000	0.0639	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0563	0.5666	0.4852	1.0900e-003		0.0234	0.0234		0.0215	0.0215	0.0000	95.4092	95.4092	0.0309	0.0000	96.1806
Total	**0.0563**	**0.5666**	**0.4852**	**1.0900e-003**	**0.1611**	**0.0234**	**0.1844**	**0.0639**	**0.0215**	**0.0854**	**0.0000**	**95.4092**	**95.4092**	**0.0309**	**0.0000**	**96.1806**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.7700e-003	0.2159	0.0456	9.3000e-004	0.0264	1.8900e-003	0.0283	7.2700e-003	1.8100e-003	9.0800e-003	0.0000	89.6398	89.6398	9.8000e-004	0.0141	93.8717
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8000e-004	6.1000e-004	8.0300e-003	2.0000e-005	2.7600e-003	1.0000e-005	2.7800e-003	7.4000e-004	1.0000e-005	7.5000e-004	0.0000	2.1777	2.1777	6.0000e-005	6.0000e-005	2.1968
Total	**4.7500e-003**	**0.2165**	**0.0536**	**9.5000e-004**	**0.0292**	**1.9000e-003**	**0.0311**	**8.0100e-003**	**1.8200e-003**	**9.8300e-003**	**0.0000**	**91.8175**	**91.8175**	**1.0400e-003**	**0.0142**	**96.0685**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0725	0.0000	0.0725	0.0288	0.0000	0.0288	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0563	0.5666	0.4852	1.0900e-003		0.0234	0.0234		0.0215	0.0215	0.0000	95.4091	95.4091	0.0309	0.0000	96.1805
Total	**0.0563**	**0.5666**	**0.4852**	**1.0900e-003**	**0.0725**	**0.0234**	**0.0959**	**0.0288**	**0.0215**	**0.0503**	**0.0000**	**95.4091**	**95.4091**	**0.0309**	**0.0000**	**96.1805**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.7700e-003	0.2159	0.0456	9.3000e-004	0.0264	1.8900e-003	0.0283	7.2700e-003	1.8100e-003	9.0800e-003	0.0000	89.6398	89.6398	9.8000e-004	0.0141	93.8717
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8000e-004	6.1000e-004	8.0300e-003	2.0000e-005	2.7600e-003	1.0000e-005	2.7800e-003	7.4000e-004	1.0000e-005	7.5000e-004	0.0000	2.1777	2.1777	6.0000e-005	6.0000e-005	2.1968
Total	**4.7500e-003**	**0.2165**	**0.0536**	**9.5000e-004**	**0.0292**	**1.9000e-003**	**0.0311**	**8.0100e-003**	**1.8200e-003**	**9.8300e-003**	**0.0000**	**91.8175**	**91.8175**	**1.0400e-003**	**0.0142**	**96.0685**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1126	1.0285	1.2368	2.0600e-003		0.0469	0.0469		0.0441	0.0441	0.0000	177.3646	177.3646	0.0419	0.0000	178.4131
Total	**0.1126**	**1.0285**	**1.2368**	**2.0600e-003**		**0.0469**	**0.0469**		**0.0441**	**0.0441**	**0.0000**	**177.3646**	**177.3646**	**0.0419**	**0.0000**	**178.4131**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5300e-003	0.2166	0.0650	9.1000e-004	0.0296	1.3300e-003	0.0309	8.5600e-003	1.2700e-003	9.8300e-003	0.0000	87.3909	87.3909	7.1000e-004	0.0130	91.2869
Worker	0.0354	0.0220	0.2896	8.4000e-004	0.0997	5.1000e-004	0.1002	0.0265	4.7000e-004	0.0270	0.0000	78.5361	78.5361	2.2400e-003	2.1300e-003	79.2266
Total	**0.0409**	**0.2386**	**0.3546**	**1.7500e-003**	**0.1293**	**1.8400e-003**	**0.1311**	**0.0351**	**1.7400e-003**	**0.0368**	**0.0000**	**165.9270**	**165.9270**	**2.9500e-003**	**0.0151**	**170.5135**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1126	1.0285	1.2368	2.0600e-003		0.0469	0.0469		0.0441	0.0441	0.0000	177.3644	177.3644	0.0419	0.0000	178.4129
Total	**0.1126**	**1.0285**	**1.2368**	**2.0600e-003**		**0.0469**	**0.0469**		**0.0441**	**0.0441**	**0.0000**	**177.3644**	**177.3644**	**0.0419**	**0.0000**	**178.4129**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5300e-003	0.2166	0.0650	9.1000e-004	0.0296	1.3300e-003	0.0309	8.5600e-003	1.2700e-003	9.8300e-003	0.0000	87.3909	87.3909	7.1000e-004	0.0130	91.2869
Worker	0.0354	0.0220	0.2896	8.4000e-004	0.0997	5.1000e-004	0.1002	0.0265	4.7000e-004	0.0270	0.0000	78.5361	78.5361	2.2400e-003	2.1300e-003	79.2266
Total	**0.0409**	**0.2386**	**0.3546**	**1.7500e-003**	**0.1293**	**1.8400e-003**	**0.1311**	**0.0351**	**1.7400e-003**	**0.0368**	**0.0000**	**165.9270**	**165.9270**	**2.9500e-003**	**0.0151**	**170.5135**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1484	1.3530	1.7452	2.9300e-003		0.0572	0.0572		0.0538	0.0538	0.0000	251.6326	251.6326	0.0592	0.0000	253.1114
Total	**0.1484**	**1.3530**	**1.7452**	**2.9300e-003**		**0.0572**	**0.0572**		**0.0538**	**0.0538**	**0.0000**	**251.6326**	**251.6326**	**0.0592**	**0.0000**	**253.1114**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.5900e-003	0.3029	0.0901	1.2600e-003	0.0420	1.8600e-003	0.0438	0.0122	1.7800e-003	0.0139	0.0000	121.4047	121.4047	9.8000e-004	0.0181	126.8218
Worker	0.0470	0.0280	0.3836	1.1500e-003	0.1414	6.9000e-004	0.1421	0.0376	6.3000e-004	0.0382	0.0000	108.6789	108.6789	2.8800e-003	2.8200e-003	109.5909
Total	**0.0545**	**0.3309**	**0.4737**	**2.4100e-003**	**0.1834**	**2.5500e-003**	**0.1859**	**0.0498**	**2.4100e-003**	**0.0522**	**0.0000**	**230.0836**	**230.0836**	**3.8600e-003**	**0.0209**	**236.4127**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1484	1.3530	1.7452	2.9300e-003		0.0572	0.0572		0.0538	0.0538	0.0000	251.6323	251.6323	0.0592	0.0000	253.1111
Total	**0.1484**	**1.3530**	**1.7452**	**2.9300e-003**		**0.0572**	**0.0572**		**0.0538**	**0.0538**	**0.0000**	**251.6323**	**251.6323**	**0.0592**	**0.0000**	**253.1111**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.5900e-003	0.3029	0.0901	1.2600e-003	0.0420	1.8600e-003	0.0438	0.0122	1.7800e-003	0.0139	0.0000	121.4047	121.4047	9.8000e-004	0.0181	126.8218
Worker	0.0470	0.0280	0.3836	1.1500e-003	0.1414	6.9000e-004	0.1421	0.0376	6.3000e-004	0.0382	0.0000	108.6789	108.6789	2.8800e-003	2.8200e-003	109.5909
Total	**0.0545**	**0.3309**	**0.4737**	**2.4100e-003**	**0.1834**	**2.5500e-003**	**0.1859**	**0.0498**	**2.4100e-003**	**0.0522**	**0.0000**	**230.0836**	**230.0836**	**3.8600e-003**	**0.0209**	**236.4127**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	8.0000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0172**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0193**	**20.0193**	**6.4700e-003**	**0.0000**	**20.1811**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.3000e-004	3.2100e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9106	0.9106	2.0000e-005	2.0000e-005	0.9182
Total	**3.9000e-004**	**2.3000e-004**	**3.2100e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9106**	**0.9106**	**2.0000e-005**	**2.0000e-005**	**0.9182**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	8.0000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0172**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0192**	**20.0192**	**6.4700e-003**	**0.0000**	**20.1811**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.3000e-004	3.2100e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9106	0.9106	2.0000e-005	2.0000e-005	0.9182
Total	**3.9000e-004**	**2.3000e-004**	**3.2100e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9106**	**0.9106**	**2.0000e-005**	**2.0000e-005**	**0.9182**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1185					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**4.1202**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	5.2000e-004	7.0700e-003	2.0000e-005	2.6100e-003	1.0000e-005	2.6200e-003	6.9000e-004	1.0000e-005	7.0000e-004	0.0000	2.0033	2.0033	5.0000e-005	5.0000e-005	2.0201
Total	**8.7000e-004**	**5.2000e-004**	**7.0700e-003**	**2.0000e-005**	**2.6100e-003**	**1.0000e-005**	**2.6200e-003**	**6.9000e-004**	**1.0000e-005**	**7.0000e-004**	**0.0000**	**2.0033**	**2.0033**	**5.0000e-005**	**5.0000e-005**	**2.0201**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1185					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**4.1202**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	5.2000e-004	7.0700e-003	2.0000e-005	2.6100e-003	1.0000e-005	2.6200e-003	6.9000e-004	1.0000e-005	7.0000e-004	0.0000	2.0033	2.0033	5.0000e-005	5.0000e-005	2.0201
Total	**8.7000e-004**	**5.2000e-004**	**7.0700e-003**	**2.0000e-005**	**2.6100e-003**	**1.0000e-005**	**2.6200e-003**	**6.9000e-004**	**1.0000e-005**	**7.0000e-004**	**0.0000**	**2.0033**	**2.0033**	**5.0000e-005**	**5.0000e-005**	**2.0201**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Dry Creek Estates Project - Sacramento Valley Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7158	1.0499	6.5199	0.0136	1.4007	0.0122	1.4129	0.3749	0.0115	0.3864	0.0000	1,288.6285	1,288.6285	0.0823	0.0673	1,310.7522
Unmitigated	0.7158	1.0499	6.5199	0.0136	1.4007	0.0122	1.4129	0.3749	0.0115	0.3864	0.0000	1,288.6285	1,288.6285	0.0823	0.0673	1,310.7522

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	632.48	639.18	572.85	1,726,695	1,726,695
Single Family Housing	755.20	763.20	684.00	2,061,726	2,061,726
Total	1,387.68	1,402.38	1,256.85	3,788,421	3,788,421

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	32.90	18.00	49.10	86	11	3
Single Family Housing	10.80	7.30	7.50	32.90	18.00	49.10	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.521099	0.056035	0.184694	0.137673	0.031367	0.007201	0.013638	0.013587	0.000723	0.000488	0.028505	0.001049	0.003940

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Single Family Housing	0.521099	0.056035	0.184694	0.137673	0.031367	0.007201	0.013638	0.013587	0.000723	0.000488	0.028505	0.001049	0.003940

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	311.2407	311.2407	0.0153	3.1600e-003	312.5657
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	311.2407	311.2407	0.0153	3.1600e-003	312.5657
NaturalGas Mitigated	0.0188	0.1603	0.0682	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	185.5911	185.5911	3.5600e-003	3.4000e-003	186.6939
NaturalGas Unmitigated	0.0188	0.1603	0.0682	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	185.5911	185.5911	3.5600e-003	3.4000e-003	186.6939

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.58514e+006	8.5500e-003	0.0730	0.0311	4.7000e-004		5.9100e-003	5.9100e-003		5.9100e-003	5.9100e-003	0.0000	84.5891	84.5891	1.6200e-003	1.5500e-003	85.0918
Single Family Housing	1.8927e+006	0.0102	0.0872	0.0371	5.6000e-004		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003	0.0000	101.0019	101.0019	1.9400e-003	1.8500e-003	101.6021
Total		**0.0188**	**0.1603**	**0.0682**	**1.0300e-003**		**0.0130**	**0.0130**		**0.0130**	**0.0130**	**0.0000**	**185.5911**	**185.5911**	**3.5600e-003**	**3.4000e-003**	**186.6939**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.58514e+006	8.5500e-003	0.0730	0.0311	4.7000e-004		5.9100e-003	5.9100e-003		5.9100e-003	5.9100e-003	0.0000	84.5891	84.5891	1.6200e-003	1.5500e-003	85.0918
Single Family Housing	1.8927e+006	0.0102	0.0872	0.0371	5.6000e-004		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003	0.0000	101.0019	101.0019	1.9400e-003	1.8500e-003	101.6021
Total		**0.0188**	**0.1603**	**0.0682**	**1.0300e-003**		**0.0130**	**0.0130**		**0.0130**	**0.0130**	**0.0000**	**185.5911**	**185.5911**	**3.5600e-003**	**3.4000e-003**	**186.6939**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	529795	141.8580	6.9700e-003	1.4400e-003	142.4619
Single Family Housing	632591	169.3827	8.3200e-003	1.7200e-003	170.1038
Total		**311.2407**	**0.0153**	**3.1600e-003**	**312.5657**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	529795	141.8580	6.9700e-003	1.4400e-003	142.4619
Single Family Housing	632591	169.3827	8.3200e-003	1.7200e-003	170.1038
Total		**311.2407**	**0.0153**	**3.1600e-003**	**312.5657**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

Use Low VOC Cleaning Supplies

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.8188	0.0126	1.0905	6.0000e-005		6.0500e-003	6.0500e-003		6.0500e-003	6.0500e-003	0.0000	1.7830	1.7830	1.7100e-003	0.0000	1.8257
Unmitigated	21.4566	0.3728	23.8618	0.0413		3.1988	3.1988		3.1988	3.1988	303.6896	129.1460	432.8356	0.2820	0.0239	447.0031

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4119					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5647					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	18.4474	0.3603	22.7713	0.0413		3.1928	3.1928		3.1928	3.1928	303.6896	127.3630	431.0525	0.2803	0.0239	445.1774
Landscaping	0.0328	0.0126	1.0905	6.0000e-005		6.0500e-003	6.0500e-003		6.0500e-003	6.0500e-003	0.0000	1.7830	1.7830	1.7100e-003	0.0000	1.8257
Total	**21.4566**	**0.3728**	**23.8618**	**0.0413**		**3.1988**	**3.1988**		**3.1988**	**3.1988**	**303.6896**	**129.1460**	**432.8356**	**0.2820**	**0.0239**	**447.0031**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4119					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.3742					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0328	0.0126	1.0905	6.0000e-005		6.0500e-003	6.0500e-003		6.0500e-003	6.0500e-003	0.0000	1.7830	1.7830	1.7100e-003	0.0000	1.8257
Total	**2.8188**	**0.0126**	**1.0905**	**6.0000e-005**		**6.0500e-003**	**6.0500e-003**		**6.0500e-003**	**6.0500e-003**	**0.0000**	**1.7830**	**1.7830**	**1.7100e-003**	**0.0000**	**1.8257**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	22.5738	0.3131	7.5700e-003	32.6551
Unmitigated	22.5738	0.3131	7.5700e-003	32.6551

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	9.57764 / 6.03808	22.5738	0.3131	7.5700e-003	32.6551
Total		**22.5738**	**0.3131**	**7.5700e-003**	**32.6551**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	9.57764 / 6.03808	22.5738	0.3131	7.5700e-003	32.6551
Total		**22.5738**	**0.3131**	**7.5700e-003**	**32.6551**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	30.3776	1.7953	0.0000	75.2592

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	149.65	30.3776	1.7953	0.0000	75.2592
Total		**30.3776**	**1.7953**	**0.0000**	**75.2592**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces		0.0000	0.0000	0.0000	0.0000
Single Family Housing		0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	0.0000	0.0000	0.0000	0.0000

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Wetlands	3.88 / 2.31	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

APPENDIX B: Biological Resources Memorandum

Biological Resources Memorandum

Dry Creek Estates Project
Sacramento County, CA
April 2022

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Acronyms

°F	Degrees Fahrenheit
ACE	Area of Conservation Emphasis
ARDR	Aquatic Resource Delineation Report
BMPs	Best Management Practices
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
ESA	Environmentally Sensitive Area
FGC	Fish and Game Code
IPaC	Information, Planning, and Consulting
Madrone	Madrone Ecological Consulting, LLC
NMFS	National Marine Fisheries Service
OHWM	Ordinary High Water Mark
Project	Dry Creek Estates Project
U.S.	United States
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Introduction

The True Life Companies (TTLC) proposes to construct approximately 147 single family homes, associated utilities service connections, and 13 local roadways on undeveloped land in the Robla Neighborhood of North Sacramento as part of the Dry Creek Estates Project (Project). As part of the development project, the land developer will initiate and complete formation of a maintenance district or annex the project into an existing maintenance district to fund maintenance and repairs of public facilities and improvements. This Biological Resources Memorandum evaluates the existing biological resources located on-site and reviews the Project's potential for impacts on these resources in compliance with the California Environmental Quality Act (CEQA). The proposed Project is located within the United States Geological Survey (USGS) 7.5-minute quadrangle of Rio Linda, 0.7 miles north of Highway 80 (Figure 1. Project Vicinity; Figure 2. Project Location; Figure 3. Project Features).

Project Description

The proposed project would build approximately 147 single family homes on the property. Lot sizes range between 5,900 ft^2 and 3,800 ft^2 with a total density of 5.11 dwelling units per acre. Homes will be built in two clusters on either side of the wetland open space corridor with 80 homes on the north side of the open space and 67 on the south side of the open space. The development will connect to existing water, power, sewer, and storm drain utility infrastructure provided by the City of Sacramento, Sacramento County, and the Sacramento Municipal Utility District. The number of new homes is not anticipated to require an expansion of the utility grid. Local distribution lines will be placed underneath the new local roadways.

The Project area is diagonally bisected by a wetland swale. The swale is not a jurisdictional water of the United States but does provide some habitat and scenic value to the property and it will not be developed. The project will preserve this feature as an open space corridor separating the housing development into two halves. TTLC will also purchase approximately 5.2 acres of additional vacant land and deed that area to the City of Sacramento for future parks and open space. The City's use of this property will be a completely separate project and is not included in this environmental analysis.

As a component of this Project, Main Avenue will be extended by approximately 1,100 feet along the north side of the Project area from its current terminus at Rio Linda Boulevard at the northwestern corner of the Project area to the existing section of Main Avenue at the northeastern corner of the Project area. This roadway gap closure would involve building a bridge over Magpie Creek just east of Rio Linda Boulevard, reconfiguring the existing intersection, and constructing approximately 1,100 linear feet of new two-lane roadway.

As a component of this project, the land developer will initiate and complete formation of a maintenance district or annex the project into an existing maintenance district to fund maintenance and repairs of public facilities and improvements. This maintenance district would levy fees or property taxes to fund maintenance activities in perpetuity.

Methods

Literature Search

Online databases from the United States Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), the California Native Plant Society (CNPS), and the National Marine Fisheries Service (NMFS) were queried for the presence of potential threatened, endangered, rare, or special status species within the Project vicinity (USFWS 2021; CDFW 2021a; CNPS 2021; NMFS 2016). A shapefile of the Project area was used to generate an official species list through the Information for Planning and Consultation (IPaC) operated by USFWS (Appendix A. USFWS Species List). A six-quadrangle search of the USGS 7.5-minute quadrangles Carmichael (3812153), Sacramento East (3812154), Sacramento West (3812155), Citrus Heights (3812163), Rio Linda (3812164), and Taylor Monument (3812165) was used to obtain lists from the CNDDB, CNPS, and NMFS (Appendix B. CNDDB Species List; Appendix C. CNPS Species List; Appendix D. NFMS Species List).

Personnel and Survey Dates

Biological surveys were completed by Madrone Ecological Consulting in 2020 and 2021 to search for sensitive biological resources and document existing site conditions. A follow up survey was completed by Dokken Engineering in the fall of 2021 to verify that site conditions remained consistent with the earlier Madrone surveys.

On May 1, 2020, Madrone Ecological Consulting, LLC (Madrone) biologists Bonnie Peterson and Matt Hirkala completed a pedestrian rare plant survey and aquatic resource delineation within the Project area. The rare plant survey followed the USFWS' *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 1996), CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018), and the CNPS *Botanical Survey Guidelines* (CNPS 2001). Delineations were performed in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b), and the Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetlands Delineations* (USACE 2016). Hydrology was subsequently recorded between January and March of 2021, where percent inundation and maximum depth of each potential aquatic source was recorded.

On November 5, 2020, Madrone biologist Dustin Brown conducted focused dry-season surveys for special status branchiopod species following the *Survey Guidelines for the Listed Large Branchiopods* (USFWS 2017). Wet-season surveys were similarly conducted by Madrone biologists between January and March of 2021. Surveys were conducted under the authority of USFWS Recovery Permit for Bonnie Peterson (TE-205600-1) and Dustin Brown (TE85084C-0)

of Section 10(a)(1)(A) of the Environmentally Sensitive Area (ESA), 16 U.S. Code 1531 et seq. All potential large vernal pool branchiopod habitat was sampled within the Project area.

On October 27, 2021, Dokken Engineering biologists Hanna Sheldon and Clare Favro conducted a supplemental field survey of the Project area to verify that site conditions remained consistent with the earlier Madrone surveys. The survey commenced at approximately 9:15 AM and concluded at 11 AM. The weather was sunny, and the temperature was 62 degrees Fahrenheit (°F). Surveys consisted of walking meandering transects through the Project area, observing present plant and animal species, classifying habitat, and assessing the Project area for suitability to support local special status species.

Limitations That May Influence Results

Biological surveys were conducted within the appropriate season and during ideal weather conditions for the time of year; therefore, these surveys are not subject to climatic limitations. The October 27, 2021 biological survey was performed outside of the typical blooming season for local plant species; however, due to the previous survey efforts conducted onsite, these survey results are not limited.

Description of the Existing Physical and Biological Conditions

The Project area is approximately 29.95 acres in size. It is relatively flat, with an average elevation of approximately 40 feet above sea level. The Project area experiences a Mediterranean climate, with hot, dry summers and cool, wet winters. Temperatures range from average highs of approximately 74°F in the summer months and average lows of approximately 48°F in the winter months (U.S. Climate Data 2021). The soil type within the Project area includes San Joaquin fine sandy loam, 0 to 3 percent slopes (87% of Project area); and San Joaquin silt loam, 0 to 3 percent slopes (13% of Project area) (NRCS 2021; Appendix E. NRCS Soil Resources Report):

Vegetation Communities

Vegetation communities and land cover types within the Project area include disturbed annual grassland, wetland swale, seasonal wetland, urban/barren, willow riparian wetland and creek land cover (Figure 4. Vegetation Communities; Appendix F. Representative Photographs). All plant and wildlife species present within the Project area were identified and listed during biological survey efforts (Appendix G. Species Observed). For further information concerning the wetlands delineated within the Project boundaries, refer to Appendix H. Dry Creek Estates Aquatic Resources Delineation Report (ARDR).

The Project area is within an area of terrestrial wildlife species Area of Conservation Emphasis (ACE) habitat connectivity level 4, indicating that this region includes habitat connectivity linkages that represent the best connections between core natural areas for specific species (CDFW 2021b). Due to the scope of the Project and existing biological conditions of the Project area, habitat connectivity within the Project area is unlikely to be disrupted.

Disturbed Annual Grassland

Disturbed annual grassland habitat makes up a vast majority of the Project area. This habitat type is frequently disturbed and had recently been plowed when the October 2021 biological survey was conducted. Survey efforts within this habitat identified a variety of non-native annual grassland species, including ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordaceus*), perennial ryegrass (*Lolium perenne*), medusa head (*Elymus capat-medusae*), and Mediterranean barley (*Hordeum marinum*). Other common species within this habitat include winter-vetch (*Vicia villosa*), wild radish (*Raphanus sativa*), wild mustard (*Brassica nigra*), storks bill (*Erodium botrys*), wild oats (*Avena sp.*), and prickly lettuce (*Lactuca serriola*). This land cover type is diagonally bisected by a wetland swale. Disturbed annual grasslands encompass approximately26.17 acres (~87%) of the Project area.

Wetland Swale

A wetland swale runs diagonally through the Project area, dividing it into two halves. The swale extends northeast into an adjacent parcel and terminates in the southwest corner of the Project area at a culvert under Grace Avenue. The swale is not a jurisdictional water of the United States; however, the project will preserve this feature as an open space corridor due to the habitat's scenic value and function. Common species within this habitat type include previously identified grassland species as well as broadleaf cattail (*Typha latifolia*) present in the southwest corner of the Project area. Wetland swale habitat comprises approximately2.26 acres (~8%) of the Project area.

Seasonal Wetland

Seasonal wetlands were identified by Madrone biologists throughout the Project area both north and south of the wetland swale. These seasonal wetlands were determined to have three key characteristics of wetland features – hydrophytic vegetation, hydric soils, and wetland hydrology. Upper margins of the seasonal wetlands were dominated by perennial ryegrass, Mediterranean barley, and curly dock (*Rumex crispus*); deeper portions included hyssop loosestrife (*Lythrum hyssopifolium*), rabbitsfoot grass (*Polypogon monspeliensis*), annual hairgrass (*Deschampsia danthonioides*), Carter's buttercup (*Ranunculus bonariensis*), woolly marbles (*Psilocarphus brevissimus*), and waxy mannagrass (*Glyceria declinate*) (Madrone 2021a). Seasonal wetlands were differentiated from the seasonal wetland swales discussed above by their lack of flow or connectivity. No evidence of surface water or subterranean flow was observed between the seasonal wetlands. During the biological survey conducted on October 27, 2021, these wetland areas were inundated with water. The Project area contains approximately0.91 acres (~3%) of seasonal wetland habitat.

Urban/Barren

Urban/barren land cover is present near the boundary of the Project area as it approaches Rio Linda Boulevard to the west, Main Avenue to the northeast, and Grace Avenue to the south. This land cover type includes the roads, sidewalks, and bike trail that pass through the Project area. These facilities are barren and regularly disturbed by vehicular or pedestrian activity. Urban/barren land cover is infrequent in the Project area and makes up approximately0.34 acres (~1%) of the Project area.

Willow Riparian Wetland

A willow riparian wetland occurs as part of the hydrological system of Magpie Creek, located at the northern extent of the Project area near Rio Linda Boulevard. This wetland habitat is dominated by narrowleaf willow (*Salix exigua var. exigua*) and Fremont cottonwood (*Populus fremontii subsp. fremontii*). Willow riparian wetland habitat comprises approximately0.19 acres (~1%) of the Project area.

Magpie Creek

Magpie Creek flows approximately 156 feet from north to south through the northwest corner of the Project area. This creek was recently realigned as part of the Rio Linda Boulevard Bridge Replacement Project, which renovated the intersection of Main Street and Rio Linda Boulevard adjacent to the proposed Project area. The portion of Magpie Creek within the Project area is a manmade channel bordered by disturbed annual grassland habitat and marginal ruderal vegetation. Additionally, a willow riparian wetland is associated with this portion of the creek. Creek habitat makes up approximately 0.08 acres (<1%) of the Project area.

Discussion of Impacts

Regional Species and Habitats and Natural Communities of Concern

The Project area was assessed for its potential to contain habitats or natural communities, plant species, and wildlife species of special concern. Plant and wildlife species are considered to have special status if they have been listed as such by Federal or State agencies or by one or more special interest groups, such as CNPS. In addition, habitats and natural communities are considered to be of special concern based on Federal, State, or local laws regulating their development, limited distributions, and/or the habitat requirements of special status species occurring onsite.

Database searches identified 26 special status or sensitive wildlife species and 9 special status or sensitive plant species with current or historic occurrences in the region. An analysis of habitat requirements, distribution of recorded observations, and field survey results determined that no special status species are anticipated to occur within the Project area; therefore, no impacts to these species are anticipated. A complete list of these species was compiled, along with discussion and determination of each species' potential of occurring within the Project area (Appendix I. Special Status Species Table).

Within the Project area, the wetland swale, seasonal wetlands, Magpie Creek, and its associated willow riparian wetland were identified as natural communities of special concern. Magpie Creek is considered a water of the U.S. and State jurisdictional under the United States (U.S.) Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and CDFW. In addition, the wetland swale habitat and the willow riparian wetland located within the Project area are considered habitats of special concern and fall under the jurisdiction of the USACE. The seasonal wetlands that occur on-site are isolated depressions that lack connection with federally jurisdictional waters; as such, they do not fall under the jurisdiction of the USACE (Appendix H).

Project impacts specific to these sensitive habitats are detailed in individual sections below (Figure 5. Project Impacts). Additionally, Table 1. Project Impacts to Sensitive Natural Habitats details the cumulative area of these impacts. BIO-1 through BIO-4 outline avoidance and minimization measures to reduce potential Project impacts to these sensitive natural communities.

Measures BIO-5 through BIO-9 outline avoidance and minimization measures surrounding migratory birds, invasive species, and site conduct that must be maintained throughout the duration of the Project.

Table 1. Project Impacts to Sensitive Natural Habitats

Habitat Type	Temporary Impacts	Permanent Impacts
Wetland Swale	0.22 acres	0.01 acres
Seasonal Wetland	--	0.89 acres
Willow Riparian Wetland	0.03 acres	0.16 acres
Magpie Creek	0.02 acres	0.06 acres
Total	**0.27 acres**	**1.12 acres**

Wetland Swale

Wetland swale habitat present within the Project area was identified as a natural community of special concern and is jurisdictional under USACE. The large wetland swale that diagonally bisects the Project area will be preserved as an open space corridor dividing the housing development into two halves. The preservation of this large swale will maintain local habitat conditions and provide scenic value to the housing development. The project is expected to have approximately 0.22 acres of temporary impacts and 0.01 acres of permanent impacts to the wetland swale due to the construction of the housing development and the installation of a storm drain (Table 1). The implementation of appropriate avoidance and minimization measures BIO-1 through BIO-3 will serve to reduce any potential Project impacts on this natural community. Any permanent impacts to this habitat will be mitigated via the implementation of BIO-4.

Seasonal Wetland

The seasonal wetlands within the Project area are considered natural communities of special concern; however, these wetlands lack connectivity to adjacent jurisdictional waters of the U.S. and are not considered jurisdictional (Appendix H). The project is anticipated to have approximately 0.89 acres of permanent impacts to seasonal wetland habitat due to the construction of the housing development (Table 1). The implementation of appropriate avoidance and minimization measures BIO-1 through BIO-3 will serve to reduce any potential Project impacts on this natural community. Any permanent impacts to this habitat will be mitigated via the implementation of BIO-4.

Willow Riparian Wetland

The willow riparian wetland within the Project area is considered a natural community of special concern under jurisdiction of the USACE. These wetlands are dominated by narrowleaf willow and Fremont cottonwood. The Project is anticipated to have approximately 0.03 acres of temporary impacts and 0.16 acres of permanent impacts to seasonal wetland habitat due to the expansion of Main Avenue north of the proposed housing development (Table 1). The implementation of appropriate avoidance and minimization measures BIO-1 through BIO-3 will serve to reduce any potential Project impacts on this natural community. Any permanent impacts to this habitat will be mitigated via the implementation of BIO-4.

Magpie Creek

Magpie Creek is a small creek channel present in the northwestern extent of the Project area that is considered a water of the U.S. and State jurisdictional under the USACE, the RWQCB, and CDFW. The creek was recently realigned as part of the Rio Linda Boulevard Bridge Replacement Project, which renovated the intersection of Main Street and Rio Linda Boulevard adjacent to the proposed Project area. The Project would construct a bridge over the existing alignment of Magpie Creek and would result in both temporary and permanent impacts to the creek and an adjacent wetland feature (Figure 6. Potential Impacts to Magpie Creek). The project is anticipated to have approximately 0.02 acres of temporary impacts and 0.06 acres of permanent impacts to creek habitat due to the installation of a bridge as part of the extension of Main Avenue (Table 1). The implementation of appropriate avoidance and minimization measures BIO-1 through BIO-3 will serve to reduce any potential Project impacts on this natural community. Any permanent impacts to this habitat will be mitigated via the implementation of BIO-4.

Avoidance and Minimization Measures

Incorporation of the following avoidance and minimization measures are recommended in order to reduce potential impacts to the greatest extent feasible.

BIO-1: The construction managers and the project foreman must attend a biological awareness training session delivered by a biologist. This training program shall include information regarding the sensitive habitats and special-status species occurring or potentially occurring within the Project area, and the importance of avoiding impacts to these species and their habitat.

BIO-2: As a first order of work, construction limits within natural communities of special concern (wetland swale, willow riparian wetland, seasonal wetland, Magpie Creek) will be marked with high visibility ESA fencing or staking to ensure construction will not further encroach into sensitive habitat resources.

BIO-3: Water Quality BMPs will be incorporated into Project design and Project management to minimize impacts on the environment including erosion and the release of pollutants (e.g. oils, fuels):

- Exposed soils and material stockpiles would be stabilized, through watering or other measures, to prevent the movement of dust at the Project site caused by wind and construction activities such as traffic and grading activities;
- All construction roadway areas would be properly protected to prevent excess erosion, sedimentation, and water pollution;
- All vehicle and equipment fueling/maintenance would be conducted outside of any surface waters;
- Equipment used in and around jurisdictional waters must be in good working order and free of dripping or leaking contaminants;
- 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 shall be prevented from contaminating the soil or entering jurisdictional waters;
- All erosion control measures and storm water control measures would be properly maintained until the site has returned to a pre-construction state;
- All disturbed areas would be restored to pre-construction contours and revegetated, either through hydroseeding or other means, with native or approved non-invasive exotic species;
- All construction materials would be hauled off-site after completion of construction.

BIO-4: Net permanent impacts to sensitive habitat communities (wetland swale, willow riparian wetland, seasonal wetland, Magpie Creek) will be appropriately mitigated for through purchase of credits at an approved mitigation bank, or other approved methods, to be determined during the permitting phase of the Project.

BIO-5: If construction is to occur within the nesting bird season (February 15 to September 30), then at most two weeks prior to the start of construction, a pre-construction nesting bird survey must be conducted by a qualified biologist to identify and locate any active nest within the Project area. A minimum 100-foot no-disturbance buffer will be established around any active nest of migratory birds and a minimum 300-foot no-disturbance buffer will be established around any nesting raptor species. The contractor is prohibited from conducting work within the buffer zone and from conducting activities that would disturb the birds (as determined by the Project biologist) in the buffer area until a qualified biologist determines the young have fledged. A reduced buffer can be established if determined appropriate by the Project biologist.

BIO-6: Prior to arrival at the Project site and prior to leaving the Project site, construction equipment that may contain invasive plants and/or seeds will be cleaned to reduce the spreading of noxious weeds.

BIO-7: Initial clearing and grubbing in the Magpie Creek Riparian corridor must be accomplished through the use of hand tools or with equipment operated at 3 miles per hour or less to allow wildlife to escape.

BIO-8: The contractor must dispose of all food-related trash in closed containers and must remove it from the Project area each day during construction. Construction personnel must not feed or attract wildlife to the Project area.

BIO-9: The contractor must not apply rodenticide or herbicide within the Project area during construction.

Conclusion

True Life Management, Inc. proposes to construct approximately 147 single family homes, associated utilities service connections, and 13 local roadways on undeveloped land in the Robla Neighborhood of North Sacramento as part of the Dry Creek Estates Project. As a component of this project, Main Avenue will be extended by approximately 1,100 feet along the north side of the Project area from its current terminus at Rio Linda Boulevard at the northwestern corner of the Project area to the existing section of Main Avenue at the northeastern corner of the Project area. This roadway gap closure would involve building a bridge over Magpie Creek just east of Rio Linda Boulevard, reconfiguring the existing intersection, and paving approximately 1,100 linear feet of two-lane roadway.

The Project will impact four natural communities of special concern – wetland swale, seasonal wetland, willow riparian wetland, and creek habitat. Magpie Creek is considered a water of the U.S. and State jurisdictional under the USACE, the RWQCB, and CDFW. In addition, the wetland swale habitat and the willow riparian wetland located within the Project area are considered habitats of special concern fall under the jurisdiction of the USACE. The seasonal wetlands that occur on-site are isolated depressions that lack connection with federally jurisdictional waters; as such, they do not fall under the jurisdiction of the USACE (Appendix H).

The Project is anticipated to have a total of 0.27 acres of temporary impacts and 1.12 acres of permanent impacts to these sensitive natural communities (Table 1). With the incorporation of measures BIO-1 through BIO-3, potential Project impacts to these natural communities would be reduced or mitigated. Additionally, any permanent impacts to sensitive habitat communities will be mitigated via the implementation of BIO-4.

No special status species were determined to have the potential to occur within the Project area; therefore, no impacts to special status species are anticipated as a result of this Project and no take is expected. Measures BIO-5 through BIO-9 outline BMPs surrounding migratory birds, invasive species, and site conduct that must be maintained throughout the duration of the Project.

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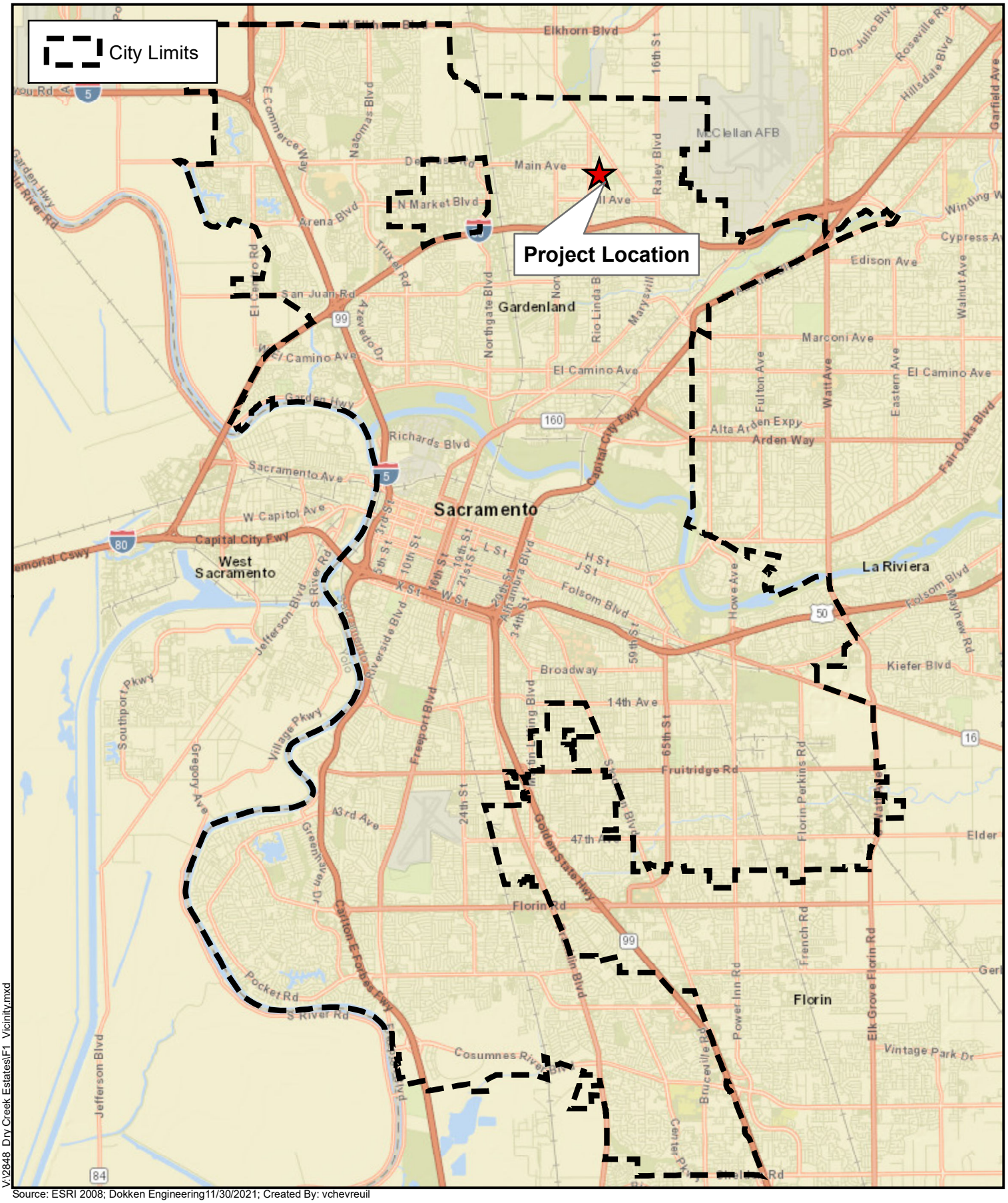
Supporting Attachments

Figures

Appendices



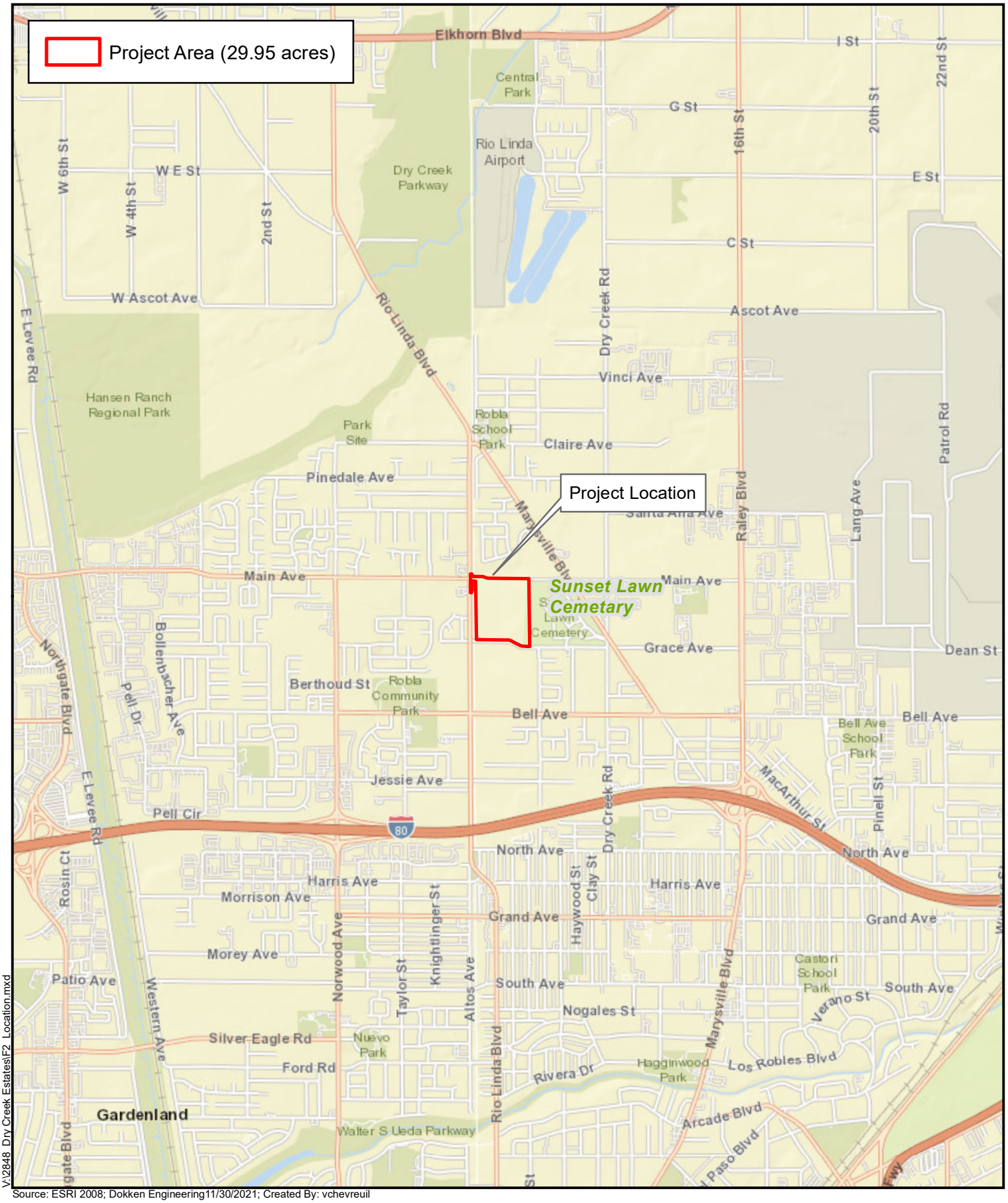
Source: ESRI 2008; Dokken Engineering11/30/2021; Created By: vchevreuil

V:\2848 Dry Creek Estates\F1 Vicinity.mxd

0 1 2 3 Miles

FIGURE 1
Project Vicinity

Dry Creek Estates Project
Sacramento County, California



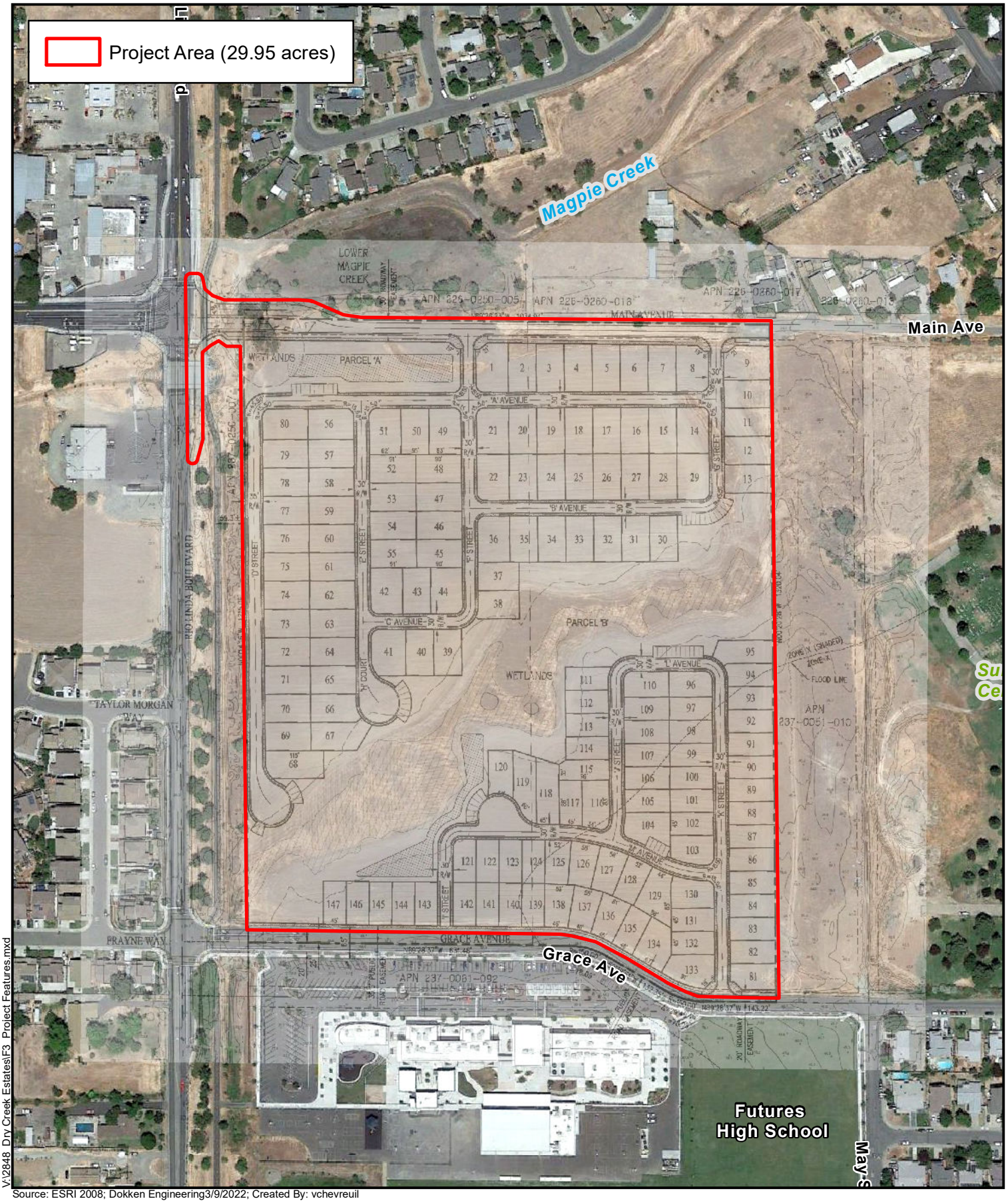
V:\2848 Dry Creek Estates\F2 Location.mxd

Source: ESRI 2008; Dokken Engineering11/30/2021; Created By: vchevreuil

0 0.5 1 Miles

FIGURE 2
Project Location

Dry Creek Estates Project
Sacramento County, California



V:\2848 Dry Creek Estates\F3 Project Features.mxd

Source: ESRI 2008; Dokken Engineering3/9/2022; Created By: vchevreuil

1 in = 250 ft

0 250 500 750 Feet

FIGURE 3
Project Features

Dry Creek Estates Project
Sacramento County, California

Source: ESRI 2008; Dokken Engineering4/7/2022; Created By: vchevreuil

V:\2848 Dry Creek Estates\Biology\F4 Veg Comm.mxd

1 in = 200 ft

0 200 400 600 Feet

FIGURE 4
Vegetation Communities

Dry Creek Estates Project
Sacramento County, California

V:\2848 Dry Creek Estates\Biology\F5 Project Impacts.mxd

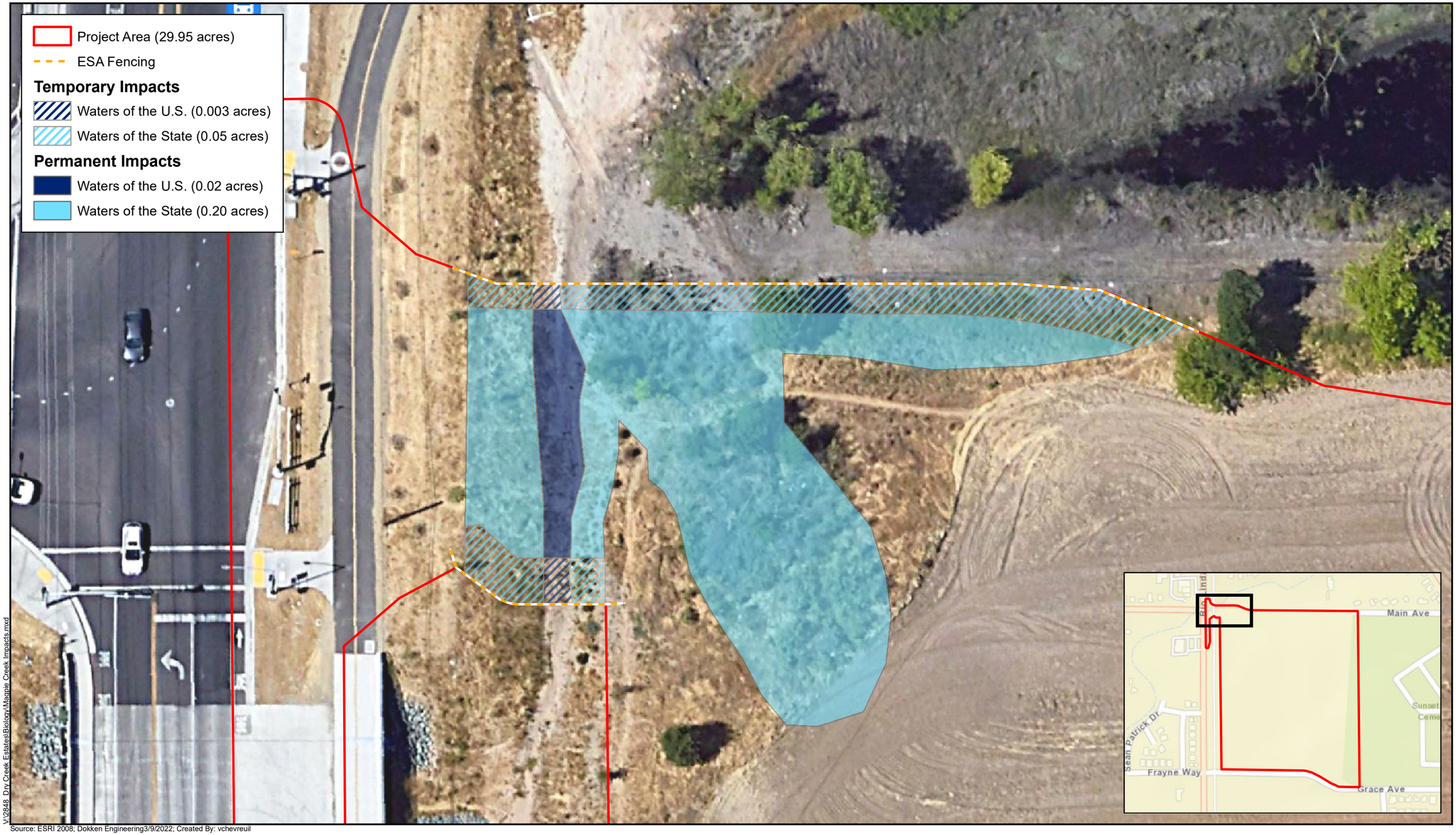
Source: ESRI 2008; Dokken Engineering4/7/2022; Created By: vchevreuil

1 in = 200 ft

0 200 400 600 Feet

FIGURE 5
Project Impacts

Dry Creek Estates Project
Sacramento County, California



V:\2848 Dry Creek Estates\Biology\Magpie Creek Impacts.mxd

Source: ESRI 2008; Dokken Engineering3/9/2022; Created By: vchevreuil

1 in = 25 ft

0 25 50 75 Feet

FIGURE 6
Proposed Impacts to Magpie Creek

Dry Creek Estates Project
Sacramento County, California

Appendix A. USFWS Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Consultation Code: 08ESMF00-2022-SLI-0108
Event Code: 08ESMF00-2022-E-00330
Project Name: Dry Creek Estates

October 15, 2021

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

To Whom It May Concern:

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

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

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

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2022-SLI-0108
Event Code: Some(08ESMF00-2022-E-00330)
Project Name: Dry Creek Estates
Project Type: DEVELOPMENT
Project Description: Dry Creek Estates Residential Development Project
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.65298715,-121.44522901578921,14z

Counties: Sacramento County, California

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

Reptiles

NAME	STATUS
Giant Garter Snake *Thamnophis gigas* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Appendix B. CNDDB Species List

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Taylor Monument (3812165) OR Rio Linda (3812164) OR Citrus Heights (3812163) OR Carmichael (3812153) OR Sacramento East (3812154) OR Sacramento West (3812155))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Ahart's dwarf rush *Juncus leiospermus var. ahartii*	PMJUN011L1	None	None	G2T1	S1	1B.2
American badger *Taxidea taxus*	AMAJF04010	None	None	G5	S3	SSC
An andrenid bee *Andrena subapasta*	IIHYM35210	None	None	G1G2	S1S2	
bank swallow *Riparia riparia*	ABPAU08010	None	Threatened	G5	S2	
black-crowned night heron *Nycticorax nycticorax*	ABNGA11010	None	None	G5	S4	
Boggs Lake hedge-hyssop *Gratiola heterosepala*	PDSCR0R060	None	Endangered	G2	S2	1B.2
burrowing owl *Athene cunicularia*	ABNSB10010	None	None	G4	S3	SSC
California black rail *Laterallus jamaicensis coturniculus*	ABNME03041	None	Threatened	G3G4T1	S1	FP
California linderiella *Linderiella occidentalis*	ICBRA06010	None	None	G2G3	S2S3	
chinook salmon - Central Valley spring-run ESU *Oncorhynchus tshawytscha pop. 11*	AFCHA0205L	Threatened	Threatened	G5T1T2Q	S2	
chinook salmon - Sacramento River winter-run ESU *Oncorhynchus tshawytscha pop. 7*	AFCHA0205B	Endangered	Endangered	G5T1Q	S1	
Cooper's hawk *Accipiter cooperii*	ABNKC12040	None	None	G5	S4	WL
dwarf downingia *Downingia pusilla*	PDCAM060C0	None	None	GU	S2	2B.2
Elderberry Savanna *Elderberry Savanna*	CTT63440CA	None	None	G2	S2.1	
Ferris' milk-vetch *Astragalus tener var. ferrisiae*	PDFAB0F8R3	None	None	G2T1	S1	1B.1
ferruginous hawk *Buteo regalis*	ABNKC19120	None	None	G4	S3S4	WL
giant gartersnake *Thamnophis gigas*	ARADB36150	Threatened	Threatened	G2	S2	
golden eagle *Aquila chrysaetos*	ABNKC22010	None	None	G5	S3	FP
great blue heron *Ardea herodias*	ABNGA04010	None	None	G5	S4	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
great egret *Ardea alba*	ABNGA04040	None	None	G5	S4	
Great Valley Cottonwood Riparian Forest *Great Valley Cottonwood Riparian Forest*	CTT61410CA	None	None	G2	S2.1	
hairy water flea *Dumontia oregonensis*	ICBRA23010	None	None	G1G3	S1	
hoary bat *Lasiurus cinereus*	AMACC05030	None	None	G3G4	S4	
least Bell's vireo *Vireo bellii pusillus*	ABPBW01114	Endangered	Endangered	G5T2	S2	
legenere *Legenere limosa*	PDCAM0C010	None	None	G2	S2	1B.1
longfin smelt *Spirinchus thaleichthys*	AFCHB03010	Candidate	Threatened	G5	S1	
midvalley fairy shrimp *Branchinecta mesovallensis*	ICBRA03150	None	None	G2	S2S3	
Northern Claypan Vernal Pool *Northern Claypan Vernal Pool*	CTT44120CA	None	None	G1	S1.1	
Northern Hardpan Vernal Pool *Northern Hardpan Vernal Pool*	CTT44110CA	None	None	G3	S3.1	
Northern Volcanic Mud Flow Vernal Pool *Northern Volcanic Mud Flow Vernal Pool*	CTT44132CA	None	None	G1	S1.1	
purple martin *Progne subis*	ABPAU01010	None	None	G5	S3	SSC
Ricksecker's water scavenger beetle *Hydrochara rickseckeri*	IICOL5V010	None	None	G2?	S2?	
Sacramento Orcutt grass *Orcuttia viscida*	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1
Sacramento perch *Archoplites interruptus*	AFCQB07010	None	None	G2G3	S1	SSC
Sacramento splittail *Pogonichthys macrolepidotus*	AFCJB34020	None	None	GNR	S3	SSC
Sacramento Valley tiger beetle *Cicindela hirticollis abrupta*	IICOL02106	None	None	G5TH	SH	
Sanford's arrowhead *Sagittaria sanfordii*	PMALI040Q0	None	None	G3	S3	1B.2
snowy egret *Egretta thula*	ABNGA06030	None	None	G5	S4	
song sparrow ("Modesto" population) *Melospiza melodia*	ABPBXA3010	None	None	G5	S3?	SSC
steelhead - Central Valley DPS *Oncorhynchus mykiss irideus pop. 11*	AFCHA0209K	Threatened	None	G5T2Q	S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
stinkbells *Fritillaria agrestis*	PMLIL0V010	None	None	G3	S3	4.2
Suisun Marsh aster *Symphyotrichum lentum*	PDASTE8470	None	None	G2	S2	1B.2
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S3	
tricolored blackbird *Agelaius tricolor*	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	IICOL48011	Threatened	None	G3T2	S3	
vernal pool fairy shrimp *Branchinecta lynchi*	ICBRA03030	Threatened	None	G3	S3	
vernal pool tadpole shrimp *Lepidurus packardi*	ICBRA10010	Endangered	None	G4	S3S4	
western pond turtle *Emys marmorata*	ARAAD02030	None	None	G3G4	S3	SSC
western ridged mussel *Gonidea angulata*	IMBIV19010	None	None	G3	S1S2	
western spadefoot *Spea hammondii*	AAABF02020	None	None	G2G3	S3	SSC
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
white-tailed kite *Elanus leucurus*	ABNKC06010	None	None	G5	S3S4	FP
woolly rose-mallow *Hibiscus lasiocarpos var. occidentalis*	PDMAL0H0R3	None	None	G5T3	S3	1B.2

Record Count: 53

Appendix C. CNPS Species List

Inventory of Rare and Endangered Plants of California

California Native Plant Society

Search Results

12 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3812163:3812164:3812165:3812155:3812154:3812153:**]

COMMON NAME	▲ SCIENTIFIC NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Ferris' milk-vetch	*Astragalus tener* var. *ferrisiae*	Fabaceae	annual herb	Apr-May	None	None	G2T1	S1	1B.1	No Photo Available
valley brodiaea	*Brodiaea rosea* ssp. *vallicola*	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G5T3	S3	4.2	No Photo Available
Parry's rough tarplant	*Centromadia parryi* ssp. *rudis*	Asteraceae	annual herb	May-Oct	None	None	G3T3	S3	4.2	No Photo Available
dwarf downingia	*Downingia pusilla*	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2	No Photo Available
stinkbells	*Fritillaria agrestis*	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	No Photo Available
Boggs Lake hedge-hyssop	*Gratiola heterosepala*	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2	No Photo Available
woolly rose-mallow	*Hibiscus lasiocarpos* var. *occidentalis*	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	G5T3	S3	1B.2	No Photo Available
Ahart's dwarf rush	*Juncus leiospermus* var. *ahartii*	Juncaceae	annual herb	Mar-May	None	None	G2T1	S1	1B.2	No Photo Available
legenere	*Legenere limosa*	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	No Photo Available
Sacramento Orcutt grass	*Orcuttia viscida*	Poaceae	annual herb	Apr-Jul(Sep)	FE	CE	G1	S1	1B.1	No Photo Available
Sanford's arrowhead	*Sagittaria sanfordii*	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	No Photo Available
Suisun Marsh aster	*Symphyotrichum lentum*	Asteraceae	perennial rhizomatous herb	(Apr)May-Nov	None	None	G2	S2	1B.2	No Photo Available

Showing 1 to 12 of 12 entries

Suggested Citation:

Appendix D. NMFS Species List

From: Vincent Chevreuil
To: nmfswcrca.specieslist@noaa.gov
Subject: Dry Creek Estates NMFS Species List
Date: Friday, October 15, 2021 3:27:06 PM
Attachments: image001.png

Quad Name **Rio Linda**

Quad Number **38121-F4**

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) - **X**
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) -
Steller Sea Lion Critical Habitat -

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 the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

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Appendix E. NRCS Soil Resources Report

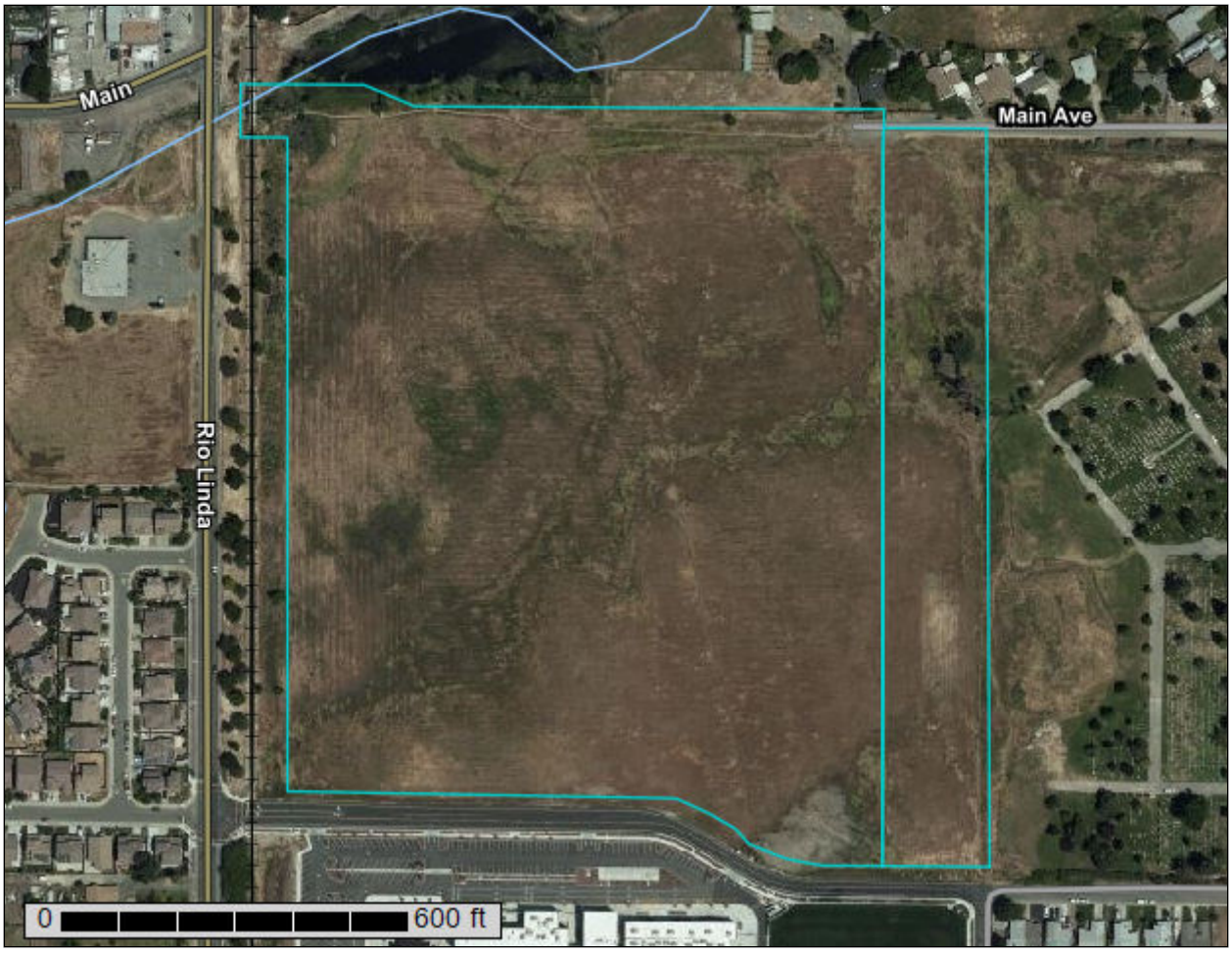
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Sacramento County, California



October 26, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:3,070 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 45 90 180 270

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Sacramento County, California
Survey Area Data: Version 20, Sep 3, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 11, 2019—May 12, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
211	San Joaquin fine sandy loam, 0 to 3 percent slopes	30.1	86.9%
214	San Joaquin silt loam, 0 to 3 percent slopes	4.5	13.0%
Totals for Area of Interest		**34.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Sacramento County, California

211—San Joaquin fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: hhps
Elevation: 20 to 500 feet
Mean annual precipitation: 10 to 22 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 300 days
Farmland classification: Not prime farmland

Map Unit Composition

San joaquin and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of San Joaquin

Setting

Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

H1 - 0 to 13 inches: fine sandy loam
H2 - 13 to 30 inches: sandy clay loam
H3 - 30 to 35 inches: clay loam
H4 - 35 to 60 inches: indurated
H5 - 60 to 67 inches: stratified sandy loam to loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches; 35 to 60 inches to duripan
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Available water supply, 0 to 60 inches: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Bruella
Percent of map unit: 4 percent
Hydric soil rating: No

Hedge
Percent of map unit: 3 percent
Hydric soil rating: No

Fiddyment
Percent of map unit: 3 percent
Hydric soil rating: No

Dierssen
Percent of map unit: 3 percent
Hydric soil rating: No

Xerarents
Percent of map unit: 1 percent
Hydric soil rating: No

Durixeralfs
Percent of map unit: 1 percent
Hydric soil rating: No

214—San Joaquin silt loam, 0 to 3 percent slopes

Map Unit Setting
National map unit symbol: hhpw
Elevation: 20 to 500 feet
Mean annual precipitation: 10 to 22 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 300 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
San joaquin and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of San Joaquin

Setting
Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

H1 - 0 to 23 inches: silt loam
H2 - 23 to 28 inches: clay loam
H3 - 28 to 54 inches: indurated
H4 - 54 to 60 inches: stratified sandy loam to loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches; 28 to 54 inches to duripan
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: C
Ecological site: R017XD045CA - LOAMY
Hydric soil rating: No

Minor Components

Galt

Percent of map unit: 4 percent
Landform: Depressions
Hydric soil rating: Yes

Bruella

Percent of map unit: 4 percent
Hydric soil rating: No

Kimball

Percent of map unit: 3 percent
Hydric soil rating: No

Hedge

Percent of map unit: 3 percent
Hydric soil rating: No

Unnamed, rarely flooded

Percent of map unit: 1 percent
Hydric soil rating: No

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Appendix F. Representative Photographs

Photo 1. Photograph of existing site conditions as of October 2021. The Project area consists of frequently disturbed annual grassland that was recently plowed. Notice the inundation of water.

Photo 2. Representative photograph of the seasonal wetlands that are present throughout the Project site. Taken near the northern border of the Project area, facing west (Oct. 2021).

Photo 3. Photograph of the future construction site of Main Avenue, which will expand the existing Main Avenue west to Rio Linda Boulevard, north of the proposed residential community. Taken facing northeast (Oct. 2021).

Photo 4. Representative photograph of the wetland swale habitat as it expands into the adjacent parcel, near Sunset Grove Cemetery. Taken facing south (Oct. 2021).

Photo 5. The Project area as seen from Grace Avenue, near Futures High School. Notice the wetland swale that bisects the Project site. Taken facing north (Oct. 2021).

Photo 5. The terminus of the wetland swale as it approaches the intersection of Rio Linda Boulevard and Grace Avenue in the southeast. Notice the Sacramento Northern Bike Trail running adjacent to the Project area. Taken facing north (Oct. 2021).

Appendix G. Species Observed

Common Name	Scientific Name	Native (N)/Non-Native (X) [Cal-IPC Rating]
Annual blue grass	*Poa annua*	X
Annual hairgrass	*Deschampsia danthonioides*	N
Little rattlesnake grass	*Briza minor*	X
Rabbitsfoot grass	*Polypogon monspeliensis*	X [Limited]
Arroyo willow	*Salix lasiolepis*	N
Bermuda grass	*Cynodon dactylon*	X [Moderate]
Black mustard	*Brassica nigra*	X [Moderate]
Blue dicks	*Dichelostemma capitatum*	N
Common hedge-hyssop	*Gratiola ebracteata*	N
Broad leaved pepperweed	*Lepidium latifolium*	X [High]
Broadleaf cattail	*Typha latifolia*	N
Bur clover	*Medicago polymorpha*	X [Limited]
Carter's buttercup	*Ranunculus bonariensis var. trisepalus*	N
Chicory	*Cichorium intybus*	X
Common groundsel	*Senecio vulgaris*	X
Common tarweed	*Centromadia pungens*	N
Corn speedwell	*Veronica arvensis*	X
spike rush	*Eleocharis macrostachya*	N
Curly dock	*Rumex crispus*	X [Limited]
Wild geranium	*Geranium dissectum*	X [Limited]
Narrowleaf cottonrose	*Logfia gallica*	X
Willow herb	*Epilobium densiflorum*	N
Dogtail grass	*Cynosurus echinatus*	X [Moderate]
Leafy bracted dwarf rush	*Juncus capitatus*	X
Woolly marbles	*Psilocarphus brevissimus*	N
Field bindweed	*Convolvulus arvensis*	X
Big heron bill	*Erodium botrys*	X
Flowering-quillwort	*Triglochin scilloides*	N
Fremont cottonwood	*Populus fremontii*	N
Fremont's goldfields	*Lasthenia fremontii*	N
Slender willow herb	*Epilobium ciliatum*	N
Crane's bill geranium	*Geranium molle*	X
Cleavers	*Galium aparine*	N
Great Valley button celery	*Eryngium castrense*	N
Hawkbit	*Leontodon saxatilis*	X
Hairy vetch	*Vicia villosa*	X
Hood canarygrass	*Phalaris paradoxa*	X
Horned downingia	*Downingia ornatissima*	N
Hyssop Loosestrife	*Lythrum hyssopifolia*	X [Limited]
Interior live oak	*Quercus wislizeni*	N
Iris-leaved rush	*Juncus xiphioides*	N
Italian ryegrass	*Festuca perennis*	X [Moderate]
Italian thistle	*Carduus pycnocephalus subsp. pycnocephalus*	X
Ithuriel's spear	*Triteleia laxa*	N
Prostrate knotweed	*Polygonum aviculare*	X
Lemmon's canarygrass	*Phalaris lemmonii*	N
Shamrock	*Trifolium dubium*	X
Waxy mannagrass	*Glyceria declinata*	X [Moderate]
Mediterranean barley	*Hordeum marinum subsp. gussoneanum*	X [Moderate]

Common Name	Scientific Name	Native (N)/Non-Native (X) [Cal-IPC Rating]
Medusa head	*Elymus caput-medusae*	X [High]
Mexican fan palm	*Washingtonia robusta*	X [Moderate]
Northern California black walnut	*Juglans hindsii*	N
Small fescue	*Festuca microstachys*	N
Pacific foxtail	*Alopecurus saccatus*	N
Jersey cudweed	*Pseudognaphalium luteoalbum*	X
Pineapple weed	*Matricaria discoidea*	N
Prickly Lettuce	*Lactuca serriola*	X
Ripgut brome	*Bromus diandrus*	X [Moderate]
Rose clover	*Trifolium hirtum*	X [Limited]
Narrowleaf willow	*Salix exigua var. exigua*	N
Seep-Spring Monkeyflower	*Mimulus guttatus*	N
Stalked Popcornflower	*Plagiobothrys stipitatus var. micranthus*	N
Narrow tarplant	*Holocarpha virgata subsp. virgata*	N
Slender oat	*Avena barbata*	X [Moderate]
Smooth barley	*Hordeum murinum subsp. glaucum*	X
Smooth cats' ear	*Hypochaeris glabra*	X [Limited]
Smooth goldfields	*Lasthenia glaberrima*	N
Soft chess	*Bromus hordeaceus*	X [Limited]
Spanish lotus	*Acmispon americanus var. americanus*	N
Spotted knapweed	*Centaurea stoebe subsp. micranthos*	X [High]
Spring vetch	*Vicia sativa*	X
Corn spurry	*Spergula arvensis*	X
Swamp grass	*Crypsis schoenoides*	X
Toad rush	*Juncus bufonius var. bufonius*	N
Turkey-mullein	*Croton setiger*	N
Valley oak	*Quercus lobata*	N
Narrow-leaved owl's clover	*Castilleja attenuata*	N
Vinegarweed	*Trichostema lanceolatum*	N
Water montia	*Montia fontana*	N
Aquatic pygmy weed	*Crassula aquatica*	N
White meadowfoam	*Limnanthes alba*	N
Many flowered brodiaea	*Dichelostemma multiflorum*	N
Wild oat	*Avena sativa*	N
Wild radish	*Raphanus sativus*	X [Limited]
Willow leaved dock	*Rumex salicifolius*	N
Winged water starwort	*Callitriche marginata*	N
Yellow star thistle	*Centaurea solstitialis*	X [High]
Wildlife		
American crow	*Corvus brachyrhynchos*	N
Northern flicker	*Colaptes auratus*	N
Red-winged blackbird	*Agelaius phoeniceus*	N
Killdeer	*Charadrius vociferus*	N
Turkey vulture	*Cathartes aura*	N
Lesser goldfinch	*Spinus psaltria*	N
Mourning dove	*Zenaida macroura*	N

Appendix H. Dry Creek Estates ARDR

Appendix H. Special Status Species Table

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Amphibian Species						
California red-legged frog	*Rana draytonii*	Fed: State: CDFW:	T -- --	The species is endemic to California and northern Baja California. Inhabits lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Associated with humid forests, woodlands, grasslands, coastal scrub, and streamsides. The species requires 11-20 weeks of permanent water for larval development and must have access to estivation habitat; estivation occurs from late summer to early winter. If wetlands are dry, requires animal burrows or other moist refuges. Occurs close to permanent and quiet stream pools, marshes, and ponds. Breeds from March to July in northern regions and January to July in southern regions. Occurs from elevations near sea level to 5,200 feet.	A	**Presumed Absent:** There are no CNDDB occurrences of this species within 10 miles of the Project area. Additionally, the Project area does not encompass any permanent sources of deep water and provides marginal emergent riparian vegetation. Due to the absence of potentially suitable habitat features as well as a lack of local occurrences, this species is presumed to be absent from the Project area.
California tiger salamander	*Ambystoma californiense*	Fed: State: CDFW:	T -- --	Inhabits annual grasslands, oak savanna, mixed woodland edges, and lower elevation coniferous forest. Requires underground refuges, especially ground squirrel burrows, vernal pools, or other seasonal water sources for breeding. Breeding occurs December through February in fish-free ephemeral ponds.	A	**Presumed Absent:** There are no CNDDB occurrences of this species within 10 miles of the Project area. The Project area does include annual grassland habitat as well as seasonal wetland habitat; however, this area is frequently disturbed via mowing/plowing and does not include any underground refuge habitat. Due to the absence of essential habitat features, the frequent disturbance of the site, and the lack of local occurrences, this species is

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						presumed to be absent from the Project area.
Western pond turtle	*Emys marmorata*	Fed: State: CDFW:	-- -- SSC	A fully aquatic turtle of ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with aquatic vegetation. Suitable habitat includes woodland, forests, and grasslands. Requires logs, rocks, cattail mats, and exposed banks for basking. Suitable upland habitat (sandy banks or grassy open field) is required for reproduction, which begins in April and ends with egg laying as late as August (sea level to 4,700 feet).	A	**Presumed Absent:** There is a local (1995) CNDDB occurrences of this species approximately 1.5 miles northeast of the Project area. However, this species is fully aquatic, and the Project area does not encompass any permanent water sources. Due to the absence of potentially suitable habitat features, this species is presumed to be absent from the Project area.
Western spadefoot	*Spea hammondii*	Fed: State: CDFW:	-- -- SSC	Inhabits open areas with sandy or gravelly soils within mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Burrows underground from most of the year and is active above ground during rainfall. Requires vernal, shallow, temporary pools formed by heavy winter rains for reproduction. These pools must be free of bullfrogs, fish, and crayfish. Breeds from late winter to March.		**Presumed Absent:** There are no CNDDB occurrences of this species within 10 miles of the Project area. The Project area includes temporary pools in the form of swales as well as sandy loam soils; however, there are no burrows present within the Project area and the Project area is frequently disturbed. Despite the presence of a few potentially suitable habitat features, this species is presumed to be absent from the Project area due to the high levels of agricultural disturbance of the site as well as the lack of occurrences.
Bird Species						
Bank swallow	*Riparia riparia*	Fed: State: CDFW:	-- T --	A migratory colonial nester inhabiting lowland and riparian habitats west of the deserts during spring through fall. Majority of current breeding populations occur along the Sacramento and Feather Rivers in the north Central Valley. Forages in grassland, brushland, wetlands, and	A	**Presumed Absent:** There is a (1986) CNDDB occurrence of this species approximately 4.7 miles south of the Project area. The Project area does not include vertical banks or cliffs suitable for nesting of this species. Additionally, the Project area does not encompass any riparian habitat. Due to the absence of

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				cropland during migration. Requires vertical banks or cliffs with fine textured/sandy soils for nesting (tunnel and burrow excavations). Nests exclusively near streams, rivers, lakes, or the ocean. Breeds from May through July.		potentially suitable habitat features as well as a lack of local occurrences, this species is presumed to be absent from the Project area.
Burrowing owl	*Athene cunicularia*	Fed: State: CDFW:	-- -- SSC	The species inhabits arid, open areas with sparse vegetation cover such as deserts, abandoned agricultural areas, grasslands, and disturbed open habitats. Can be associated with open shrub stages of pinyon-juniper and ponderosa pine habitats. Nests in old small mammal burrows, but may dig own burrow in soft soil. Nests are lines with excrement, pellets, debris, grass, and feathers. The species may use pipes, culverts, and nest boxes, and even buildings where burrows are scarce. Breeding occurs March through August (below 5,300 feet).	A	**Presumed Absent:** There is a recent (2007) CNDDB occurrence of this species approximately 1.6 miles southwest of the Project area. The Project area does include disturbed annual grassland habitat; however, no slopes are present within the Project area and no small mammal burrows were observed due to frequent soil plowing. Due to a lack of potentially suitable habitat features, the species is presumed to be absent from the Project area.
California black rail	*Laterallus jamaicensis coturniculus*	Fed: State: CDFW:	-- T FP	A rare, yearlong California resident of brackish and freshwater emergent wetlands in delta and coastal locations, including the San Francisco Bay area, Sacramento-San Joaquin Delta, Morro Bay, the Salton Sea, and lower Colorado River. The species is extirpated from San Diego County and the majority of coastal southern California. Occurs in tidal emergent wetlands dominated by pickleweed, in brackish marshes dominated by bulrushes with pickleweed, and in freshwater wetlands dominated by bulrushes, cattails, and saltgrass. Species prefers high wetland areas,	A	**Presumed Absent:** There are no CNDDB occurrences of this species within 10 miles of the Project area. Additionally, the Project area does not include any high wetlands with emergent aquatic vegetation and as lacks suitable overhead vegetative cover. Due to the lack of potentially suitable habitat features and with no local occurrences, this species is presumed to be absent from the Project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				away from areas experiencing fluctuating water levels. Requires vegetation providing adequate overhead cover for nesting. Eggs are laid from March through June.		
Least Bell's vireo	*Vireo bellii pusillus*	Fed: State: CDFW:	E E --	Summer resident of southern California inhabiting low elevation riparian habitats in the vicinity of water and dry river bottoms. Prefers willows, baccharis, mesquite, and other low, dense vegetation as nesting site. Forages in dense brush and occasionally tree tops. The species is known to occur in all four southern California national forests, with the largest population in the Los Padres National Forest (below 2,000 feet).	A	**Presumed Absent:** Due to the loss of riparian habitat, this species has been locally extirpated from much of Northern California. The only recent occurrence of this species within 50 miles of the Project area is in the Yolo Bypass Wildlife Area, 13 miles southwest of the Project. Additionally, there is a historic (1877) CNDDB occurrence of this species approximately 5 miles southwest of the Project area. The Project area includes willow riparian habitat; however, suitable habitat is sparse. Due to the absence of sufficient habitat features and with no recent local occurrences, this species is presumed to be absent from the Project area.
Purple martin	*Progne subis*	Fed: State: CDFW:	-- -- SSC	Present in California as a summer migrant, arriving in March and departing by late September. Inhabits valley foothill and montane hardwood/hardwood-conifer, coniferous habitats, and riparian habitats. Associated with closed-cone pine-cypress, ponderosa pine, Douglas-fir, and redwood. Nests in tall, old, isolated trees or snags in open forest or woodland and in proximity to a body of water. Frequently nests within former woodpecker cavities; may nest in human-made structures such as nesting boxes, under bridges and in culverts. Needs abundant aerial	A	**Presumed Absent:** There is a recent (2007) CNDDB occurrence of this species approximately 2.1 miles southeast of the Project area. The Project area does not encompass any woodland habitat. Additionally, the riparian habitat within the Project area does not include suitable tall nesting trees. Due to the absence of potentially suitable habitat features, this species is presumed to be absent from the Project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				insect prey. Breeds April through August.		
Song Sparrow "Modesto Population"	*Melospiza melodia*	Fed: State: CDFW:	-- -- SSC	An endemic bird found exclusively in the north-central portion of the Central Valley, with highest densities in the Butte Sink and Sacramento-San Joaquin River Delta. The species is usually found in open brushy habitats, along the borders of ponds or streams, abandoned pastures, desert washes, thickets, or woodland edges. In addition, there is a strong affinity for emergent freshwater marshes dominated by tules and cattails, riparian willow thickets, and valley oak forests with a blackberry understory. Nests found in base of shrubs or clumps of grass, requiring low, dense vegetation for cover, usually near water. Breeds from March through August.	A	**Presumed Absent:** There is a historical (1900) CNDDB occurrence of this species approximately 0.8 miles southwest of the Project area; however, there are no recent CNDDB occurrences of this species within 10 miles of the Project area. The Project area does not encompass any open brushy habitat and does not include any freshwater marsh habitat with dense emergent vegetation. Due to the absence of potentially suitable habitat features and with no recent local occurrences, this species is presumed to be absent from the Project area.
Swainson's hawk	*Buteo swainsoni*	Fed: State: CDFW:	-- T --	Inhabits grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, alfalfa or grain fields that support a stable rodent prey base. Breeds March to late August.	A	**Presumed Absent:** There is a recent (2007) CNDDB occurrence of this species approximately 1.1 miles northwest of the Project area. The Project area encompasses grassland habitat but does not include any riparian habitat or any suitable nesting trees. Therefore, while the species may be transient within the area, there are no opportunities for this species to nest within the Project area. Due to a lack of suitable nesting habitat, this species is presumed to be absent from the Project area.
Tricolored blackbird	*Agelaius tricolor*	Fed: State: CDFW:	-- T SSC	Inhabits freshwater marsh, swamp and wetland communities, but may utilize agricultural or upland habitats that can	A	**Presumed Absent:** There is a local (1998) CNDDB occurrence of this species approximately 0.4 miles east of

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				support large colonies, often in the Central Valley area. Requires dense nesting habitat that is protected from predators, is within 3-5 miles from a suitable foraging area containing insect prey and is within 0.3 miles of open water. Suitable foraging includes wetland, pastureland, rangeland, at dairy farms, and some irrigated croplands (silage, alfalfa, etc.). Nests in dense cattails, tules, willow, blackberry, wild rose, or tall herbs. Nests mid-March to early August, but may extend until October or November in the Sacramento Valley region.		the Project area. Despite the presence of wetland/riparian habitat features, the Project area does not include any dense vegetation that would be suitable for nesting of this species. Due to the lack of suitable nesting habitat, this species is presumed to be absent from the Project area.
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	Fed: State: CDFW:	T E --	Species inhabits riparian forests, along broad, lower flood bottoms of larger river systems. Nests in large blocks of riparian jungles often mixed with cottonwoods. Nesting appears to be preferred in riparian forest habitats with a dense understory; requires water near nesting site. Breeds June to August.	A	**Presumed Absent:** There is a historical (1900) CNDDB occurrence of this species approximately 0.8 miles southwest of the Project area; however, there are no recent CNDDB occurrences of this species within 10 miles of the Project area. The Project area encompasses willow riparian habitat; however, this habitat lacks the dense vegetation typical of a riparian jungle and is not in proximity to a large river. Due to a lack of potentially suitable habitat features as well as a lack of local occurrences, the species is presumed to be absent from the Project area.
White-tailed kite	*Elanus leucurus*	Fed: State: CDFW:	-- -- FP	Inhabits rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Prefers open grasslands, meadows or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	A	**Presumed Absent:** There is a recent (2002) CNDDB occurrence of this species approximately 1 mile north of the Project area. The Project area does not encompass any woodland habitat and does not include any dense trees for nesting. Due to the lack of necessary

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				In southern California, will roost in saltgrass and Bermuda grass. Often found near agricultural lands. Nests are placed near the tops of dense oak, willow, or other tree stands. Breeds February through October.		habitat features, this specie is presumed to be absent from the Project area.
Fish Species						
Chinook salmon – Central Valley spring-run ESU	*Oncorynchus tshawytscha pop. 11*	Fed: State: CDFW:	T T --	Spring-run Chinook enter the Sacramento-San Joaquin River system to spawn, requiring larger gravel particle size and more water flow through their redds than other salmonids. Remaining runs occur in Butte, Mill, Deer, Antelope, and Beegum Creeks, tributaries to the Sacramento River. Known to occur in Siskiyou and Trinity counties.	A	**Presumed Absent:** There is a recent (2004) CNDDB occurrence of this species within the Sacramento River Deep Water Ship Channel approximately 7.5 miles southwest of the Project area. The Project area does not include any of the water channels where the remaining runs of this species occur; therefore, the species is presumed absent.
Chinook salmon – Sacramento River winter-run ESU	*Oncorynchus tshawytscha pop. 7*	Fed: State: CDFW:	E E --	Winter-run Chinook are currently restricted within the Sacramento River below Keswick dam; species does not spawn in tributaries. Species requires cold water over gravel beds to spawn.	A	**Presumed Absent:** There is a recent (2004) CNDDB occurrence of this species within the Sacramento River Deep Water Ship Channel approximately 7.5 miles southwest of the Project area. The Project area does not include any gravel beds or sufficient water flow that could provide habitat for this species; therefore, the species is presumed absent.
Delta smelt	*Hypomesus transpacificus*	Fed: State: CDFW:	T -- --	This species is endemic to California and can tolerate a wide range of salinity and temperatures but is most commonly found in brackish waters. Juveniles require shallow waters with food rich sources. Adults require adequate flow and suitable water quality for spawning in winter and spring. Occurs within the Sacramento-San Joaquin Delta and seasonally within the Suisun Bay, Carquinez	A	**Presumed Absent:** There are no local CNDDB occurrences of this species within 10 miles of the Project area. Additionally, the Project area does not include any suitable water channels that could provide habitat for this species, lacking both salinity and sufficient water flow; therefore, the species is presumed absent.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				Strait and San Pablo Bay. Most often occurs in partially saline waters.		
Longfin smelt	*Spirinchus thaleichthys*	Fed: State: CDFW:	-- T --	Within California, occurs slightly upstream from Rio Vista (on the Sacramento River in the Delta) including the Cache Slough region and Medford Island (on the San Joaquin River in the Delta) through Suisun Bay and Suisun Marsh, the San Pablo Bay, the main San Francisco Bay, South San Francisco Bay,the Gulf of the Farallones, Humboldt Bay, and the Eel River estuary & local coastal areas. Resides in California and are primarily an anadromous estuarine species that can tolerate salinities ranging from freshwater to nearly pure seawater. Prefers temperatures in the range of 16-18°C and salinities ranging from 15-30 ppt. Their spatial distribution within a bay or estuary is seasonally variable. Longfin smelt may also make daily migrations; remaining deep during the day and rising to the surface at night.	A	**Presumed Absent:** According to CNDDB, this species is presumed to be extant within the Sacramento River as of 2004. The Project area does not include any suitable water channels that could provide sufficient aquatic flow for this species; additionally, this species is known to prefer semi-saline aquatic environments near the coast or within the delta. The species is presumed absent.
Sacramento perch	*Archoplites interruptus*	Fed: State: CDFW:	-- -- SSC	Inhabits sloughs, lakes, and slow moving rivers of the Central Valley. Prefers turbid lakes, reservoirs and ponds warmed by summer heat and absent of plants; may occasionally occur in clear water among beds of aquatic vegetation. Species tolerates high temperatures, high salinities, high turbidity, and low water clarity. Young require aquatic and overhanging vegetation for cover. Spawns March-August in water temperatures between 64-84°F	A	**Presumed Absent:** There are no CNDDB occurrences of this species within 10 miles of the Project area; additionally, the nearest CNDDB occurrence of this species is confined to Lake Greenhaven, which is isolated from other water sources. The Project area does not include any suitable water channels that could provide habitat for this species; therefore, the species is presumed absent.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Sacramento splittail	*Pogonichthys macrolepidotus*	Fed: State: CDFW:	-- -- SSC	Historically inhabited low moving rivers, sloughs, and alkaline lakes of the Central Valley; now restricted to the Delta, Suisun Bay and associated marshes. Species is adapted to fluctuating environments with tolerance to water salinities from 10-18 ppt., low oxygen levels (< 1.0 mg/L) and temperatures of 41-75°F. Spawns late February- early July, with a peak in March-April; requires flooded vegetation for spawning activity and protective cover for young.	A	**Presumed Absent:** According to CNDDB, this species is presumed to be extant within the Sacramento River as of 1995. However, the species now restricted to the Delta, Suisun Bay, and associated marshes. The Project area does not include any applicable water bodies that host this species; therefore, the species is presumed absent.
Steelhead – Central Valley DPS	*Oncorynchus mykiss irideus pop. 11*	Fed: State: CDFW:	T -- --	Southern California and central California steelhead utilize rivers and creeks from Pajaro River south to Santa Maria River. Spawning occurs in coastal watersheds while rearing occurs in freshwater or estuary habiats prior to emigrating to the ocean in the winter and spring. Preferred spawning sites contain gravel substrate with sufficient water flow and riverine cover. Rearing habitat contains sufficient feeding with associated riparian forest containing willow and cottonwoods. Migration upstream for reproduction occurs from October to May with spawning occurring January to April.	A	**Presumed Absent:** There is a recent (2007) CNDDB occurrence of this species approximately 1.1 miles northwest of the Project area within Dry Creek. The Project area does not include any suitable water channels due to a lack of gravel beds, overhead vegetative cover, and sufficient water flow; therefore, the species is presumed absent.
Invertebrate Species						
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Fed: State: CDFW:	T -- --	Species requires red or blue elderberry (Sambucus sp.) as host plants. Typically occurs in moist valley oak woodlands associated with riparian corridors in the lower Sacramento River and upper San Joaquin River drainages. Adults are active, feeding, and breeding from	A	**Presumed Absent:** There is a historic (1984) CNDDB occurrence of this species approximately 3.7 miles southwest of the Project area, as well as multiple occurrences of this species along length of the American River Parkway. The Project area does not include any elderberry bushes, which are

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				March until June (sea level-3,000 feet).		a requisite for this species; therefore, the species is presumed to be absent due to a lack of necessary habitat features.
Vernal pool fairy shrimp	*Branchinecta lynchi*	Fed: State: CDFW:	T -- --	In California, species inhabits portions of Tehama county, south through the Central Valley, and scattered locations in Riverside County and the Coast Ranges. Species is associated with smaller and shallower cool-water vernal pools approximately 6 inches deep and short periods of inundation. In the southernmost extremes of the range, the species occurs in large, deep cool-water pools. Inhabited pools have low to moderate levels of alkalinity and total dissolved solids. The shrimp are temperature sensitive, requiring pools below 50 F to hatch and dying within pools reaching 75 F. Young emerge during cold-weather winter storms.	A	**Presumed Absent:** There is a (1996) CNDDB occurrence of this species located approximately 1.6 miles northeast of the Project area. However, the Project area does not encompass vernal pools and is frequently disturbed by mowing and plowing. Additionally, biologists from Madrone Ecological Consulting reviewed the wetland resources within the Project area for evidence of special status branchiopod species in 2020 and 2021. No federally listed branchiopod species were observed during sampling (Madrone 2020; Madrone 2021b). Due to the frequent disturbance of the Project site, the lack of suitable vernal pool features, and the negative results of focused surveying, this species is presumed to be absent from the Project area.
Vernal pool tadpole shrimp	*Lepidurus packardi*	Fed: State: CDFW:	E -- --	Inhabits vernal pools and swales containing clear to highly turbid waters such as pools located in grass bottomed swales of unplowed grasslands, old alluvial soils underlain by hardpan, and mud-bottomed pools with highly turbid water.	A	**Presumed Absent:** There is a (1998) CNDDB occurrence of this species located approximately 1 mile northeast of the Project area. The Project area encompasses a large swath of wetland swale habitat; however, the Project area is frequently disturbed by mowing and plowing. Additionally, biologists from Madrone Ecological Consulting reviewed the wetland resources within the Project area for evidence of special status branchiopod species in 2020 and 2021. No federally listed branchiopod species were observed during sampling (Madrone 2020; Madrone 2021b).

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						Despite the nearby occurrence of this species as well as the presence of potentially suitable habitat features, this species is presumed to be absent from the Project area due to the negative results of focused surveying as well as the frequent disturbance of the Project site.
Mammal Species						
American badger	*Taxidea taxus*	Fed: State: CDFW:	-- -- SSC	Prefers treeless, dry, open stages of most shrub and herbaceous habitats with friable soils and a supply of rodent prey. Species also inhabits forest glades, meadows, marshes, brushy areas, hot deserts, and mountain meadows. Species maintains burrows within home ranges estimated between 338-1,700 acres, dependent on seasonal activity. Burrows are frequently re-used, but new burrows may be created nightly. Young are born in March and April within burrows dug in relatively dry, often sandy, soil, usually in areas with sparse overstory cover. Species is somewhat tolerant of human activity, but is sensitive to automobile mortality, trapping, and persistent poisons (up to 12,000 feet).	A	**Presumed Absent:** There are no CNDDB occurrences of this species within 10 miles of the Project area. The Project area does not include herbaceous habitat and the local area lacks the sufficient acreage to support individuals of this species. Additionally, no burrows were observed within the Project area on the biological survey conducted on October 27, 2021. Due to a lack of sufficient habitat features and with no local occurrences, the species is presumed to be absent from the Project area.
Reptile Species						
Giant garter snake	Thamnophis gigas	Fed: State: CDFW:	T T --	A highly aquatic species that inhabits marsh, swamp, wetland (including agricultural wetlands), sloughs, ponds, rice fields, low gradient streams and irrigation/drainage canals adjacent to uplands. Ideal habitat contains both shallow and deep water with variations in topography. Species requires adequate water during the active	A	**Presumed Absent:** There is a (1998) CNDDB occurrence of this species approximately 3.3 miles west of the Project area. The Project area does not include permanent water sources that would support a fully aquatic species. Due to a lack of necessary habitat features, the species is presumed to be absent from the Project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				season (April-November), emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat and mammal burrows estivation. Requires grassy banks and openings in waterside vegetation for basking and higher elevation uplands for cover and refuge from flood waters during winter dormant season. Mating occurs in the spring and females bear live young.		
Plant Species						
Ahart's dwarf rush	*Juncus leiospermus var. ahartii*	Fed: State: CDFW:	-- -- 1B.2	An annual herb inhabiting grassland swales, gopher mounds, and vernal pool margins of mesic valley and foothill grassland communities. Flowers March-May (100-750 feet).	HP	**Presumed Absent:** There are no CNDDB or Calflora occurrences of this species within 10 miles of the Project area. The Project area includes grassland swale habitat; however, no individuals of this species were observed during the focused rare plant survey performed by Madrone biologists in May of 2020 (Madrone 2021a) or during the general biological survey performed by Dokken biologists in October of 2021. Therefore, the species is presumed to be absent from the Project area.
Bogg's Lake hedge-hyssop	*Gratiola heterosepala*	Fed: State: CDFW:	-- E 1B.2	An annual herb inhabiting clay soils and shallow waters of marshes, swamps, lake margins, and vernal pools. Flowers April-August (30-7,800 feet).	A	**Presumed Absent:** There is a historic (1960) CNDDB and Calflora occurrence of this species located approximately 3.8 miles north of the Project area. The Project area includes seasonal wetland and wetland swale habitat that provides potentially suitable habitat for this species; however, no individuals of this species were observed during the focused rare plant survey performed by Madrone biologists in May of 2020 (Madrone 2021a) or during the general biological survey performed by Dokken

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						biologists in October of 2021. Therefore, the species is presumed to be absent from the Project area.
Dwarf downingia	*Downingia pusilla*	Fed: State: CDFW:	-- -- 2B.2	An annual herb inhabiting vernal pools and other seasonally inundated features within mesic soils in valley and foothill grassland communities. Flowers March-May (0-1,500 feet).		**Presumed Absent:** There is a (1993) CNDDB occurrence of this species located approximately 3.8 miles northwest of the Project area as well as a historic (1934) Calflora occurrence located 2.5 miles north of the Project area. The Project area encompasses seasonally inundated wetland features that could provide habitat for this species; however, no individuals of this species were observed during the focused rare plant survey performed by Madrone biologists in May of 2020 (Madrone 2021a) or during the general biological survey performed by Dokken biologists in October of 2021. Therefore, the species is presumed to be absent from the Project area.
Ferris' milk-vetch	*Astragalus tener var. ferrisiae*	Fed: State: CDFW:	-- -- 1B.1	An annual herb inhabiting vernally mesic meadows and seeps and subalkaline flats within valley and foothill grassland communities. Known only from six extant occurrences. Flowers April-May (0-250 feet).	A	**Presumed Absent:** There is a historic (1954) CNDDB occurrence of this species located approximately 9.2 miles southwest of the Project area as well as a historic (1905) Calflora occurrence located 5.5 miles southwest of the Project area. The Project area does not include vernally mesic soils or subalkaline flats that could provide potentially suitable habitat for this species; therefore, the species is presumed to be absent from the Project area.
Legenere	*Legenere limosa*	Fed: State: CDFW:	-- -- 1B.1	An annual herb inhabiting wet areas, vernal pools, and ponds. Flowers April-June (0-2,900 feet).	A	**Presumed Absent:** There is a (1991) CNDDB occurrence of this species located approximately 0.9 miles north of the Project area. The Project area

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						includes wetland swale habitat; however, no individuals of this species were observed during the focused rare plant survey performed by Madrone biologists in May of 2020 (Madrone 2021a) or during the general biological survey performed by Dokken biologists in October of 2021. Therefore, the species is presumed to be absent from the Project area.
Sacramento Orcutt grass	*Orcuttia viscida*	Fed: State: CDFW:	E E 1B.1	An annual herb inhabiting vernal pools. Flowers April-July (100-330 feet).		**Presumed Absent:** There are no CNDDB or Calflora occurrences of this species within 10 miles of the Project area. Additionally, the Project area lacks vernal pool habitat that may provide potentially suitable habitat for this species. Due to the absence of potentially suitable habitat features and with no recent or local occurrences, this species is presumed to be absent from the Project area.
Sanford's arrowhead	*Sagittaria sanfordii*	Fed: State: CDFW:	-- -- 1B.2	A perennial rhizomatous herb inhabiting freshwater marshes, swamps, ponds, and ditches. Flowers May-October (0-2,130 feet).	A	**Presumed Absent:** There is a recent (2006) CNDDB occurrence of this species located approximately 1.7 miles northwest of the Project area. The Project area includes a wetland swale that provides marginal habitat for this species; however, no individuals of this species were observed during the focused rare plant survey performed by Madrone biologists in May of 2020 (Madrone 2021a) or during the general biological survey performed by Dokken biologists in October of 2021. Therefore, the species is presumed to be absent from the Project area.
Suisun Marsh aster	*Symphyotrichum lentum*	Fed: State:	-- --	A perennial rhizomatous herb inhabiting swamps, freshwater marsh,		**Presumed Absent:** There are no CNDDB or Calflora occurrences of this

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
		CDFW:	1B.2	and brackish-marsh communities. Flowers May-November (0-10 feet).		species within 10 miles of the Project area. The Project area does not include any swamp or marsh habitat that could potentially support this species. Therefore, the species is presumed to be absent from the Project area.
Woolly rose-mallow	*Hibiscus lasiocarpos var. occidentalis*	Fed: State: CDFW:	-- -- 1B.2	A perennial rhizomatous herb inhabiting freshwater wetlands, wet banks, and marsh communities. Often found in-between riprap on levees. Flowers June-September (0-400 feet).		**Presumed Absent:** There is a (1988) CNDDB occurrence of this species located approximately 5.4 miles southwest of the Project area. The Project area includes seasonal wetlands, which provide marginally suitable habitat for this species; however, no individuals of this species were observed during the biological survey conducted by Madrone biologists in May of 2020 (Madrone 2021a) or by Dokken biologists in October of 2021. Therefore, the species is presumed to be absent from the Project area.

[1]Status: Endangered (E); Threatened (T); Candidate (C), Fully Protected (FP); Rare (R); State Species of Special Concern (SSC); Wait List (WL).
[2]Absent [A] - no habitat present and no further work needed. Habitat Present [HP] - habitat is or may be present. The species may be present. Present [P] - the species is present. Critical Habitat [CH] - project footprint is located within a designated critical habitat unit, but does not necessarily mean that appropriate habitat is present.

APPENDIX C: Noise Study Report

Noise Study Report

Dry Creek Estates Project

City of Sacramento, California

January 2022

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Table of Contents

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List of Abbreviated Terms

CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNEL	Community Noise Equivalent Level
dB	Decibels
FHWA	Federal Highway Administration
Hz	Hertz
kHz	Kilohertz
L_{dn}	Day-Night Level
L_{eq}	Equivalent Sound Level
$L_{eq(h)}$	Equivalent Sound Level over one hour
L_{max}	Maximum Sound Level
LOS	Level of Service
L_{xx}	Percentile-Exceeded Sound Level
mPa	micro-Pascals
mph	miles per hour
NSR	Noise Study Report
Protocol	Caltrans Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects
SPL	sound pressure level
TNM 2.5	FHWA Traffic Noise Model Version 2.5

Chapter 1. Introduction

1.1 Purpose of the Noise Study Report

The purpose of this Noise Study Report is to evaluate noise impacts under the California Environmental Quality Act (CEQA). Pursuant to the CEQA Guidelines (Title 14, Sections 15000 et seq. of the California Code of Regulations) and the City of Sacramento Local Environmental Regulations (Resolution 91-892), this Noise Study Report shall analyze the following questions related to noise:

Would the project:

a) Result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases?

b) Result in residential interior noise levels of 45 dBA Ldn or greater caused by noise level increases due to the project?

c) Result in construction noise levels that exceed the standards in the City of Sacramento General Plan or Noise Ordinance?

d) Permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction?

e) Permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations?

f) Permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic?

This report provides the technical background for answering questions above and evaluating noise impacts in general.

Chapter 2. Project Description

The project is located in the Robla Neighborhood of North Sacramento on two vacant parcels totaling 28.78 acres in size (APN 237-0051-012 & 237-0051-013). The parcels are located on the east side of Rio Linda Boulevard south of the Main Avenue intersection and bordered by Futures High School to the south and Sunset Lawn Funeral Home to the east. The City of Sacramento is the California Environmental Quality Act (CEQA) lead agency.

2.1. Project Description

The City of Sacramento is evaluating the environmental impact of rezoning the project area and allowing for residential development. The proposed project would include construction of approximately 147 single family homes, associated utilities service connections, and 13 local roadways on the undeveloped site. In addition, as part of the development project, a maintenance district may be formed to maintain a segment of the Sacramento Northern Bike Trail. A discussion of the project components, including residential units, site access and circulation, utility infrastructure, open space preservation, and the maintenance district are discussed in greater detail below.

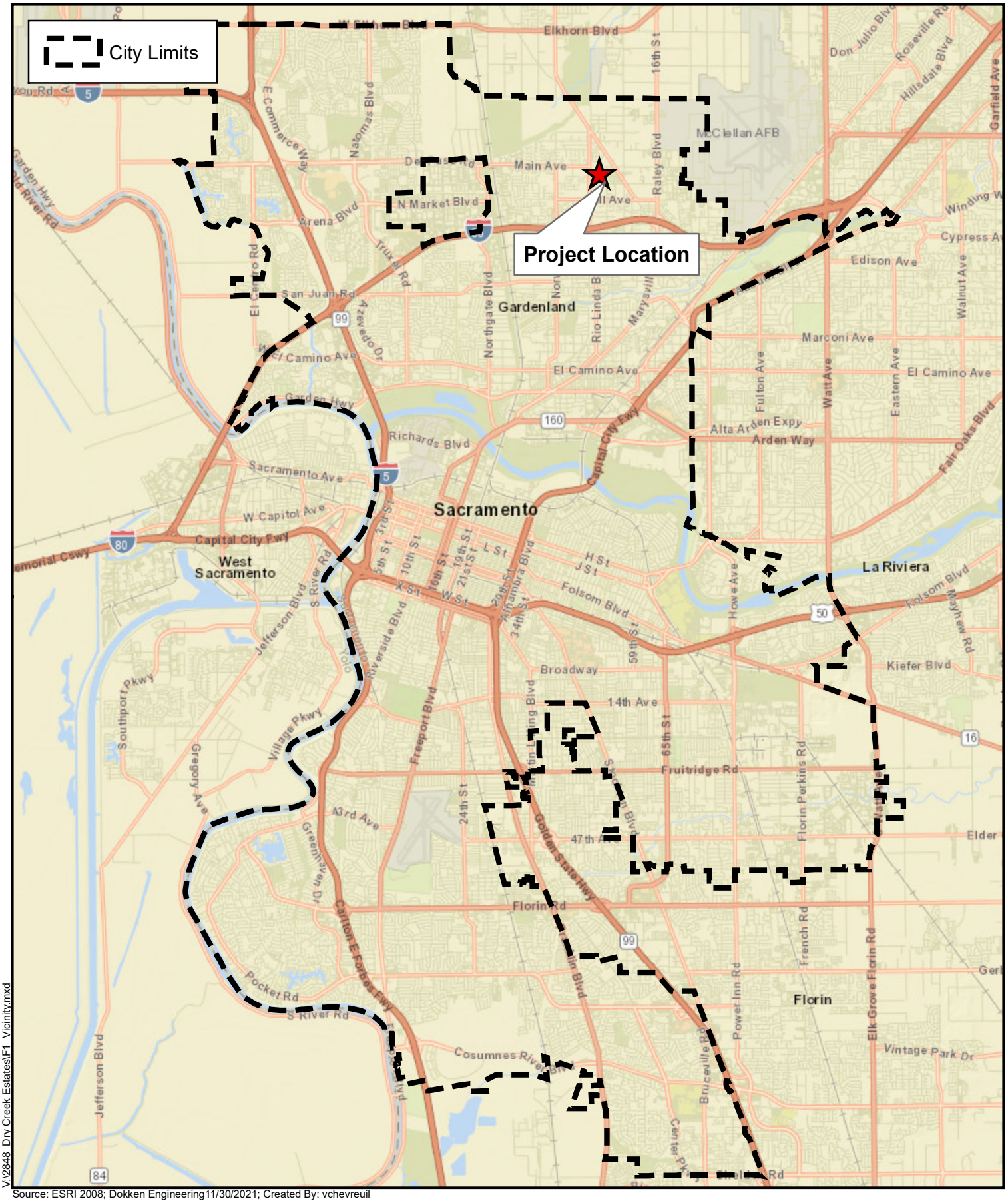
Residential Units

The proposed project would build approximately 147 single family homes on the property. Lot sizes range between 5,900 ft2 and 3,800 ft2 with a total density of 5.11 dwelling units per acre. Homes will be built in two clusters on either side of the wetland open space corridor with 80 homes on the north side of the open space and 67 on the south side of the open space.

Site Access and Circulation

The project area is bordered by Rio Linda Boulevard on the west side and Grace Avenue on the South Side. As a component of this project, Main Avenue will be extended by approximately 1,100 feet along the north side of the project area from its current terminus at Rio Linda Boulevard at the northwestern corner of the project area to the existing section of Main Avenue at the northeastern corner of the project area. This roadway gap closure would involve building a bridge over Magpie Creek just east of Rio Linda Boulevard, reconfiguring the existing intersection, and paving approximately 1,100 linear feet of two-lane roadway.

Roadway access to individual properties within the development will be provided by a network of 13 new local streets. Right-of-way for these streets will be 30 feet wide, accommodating two travel lanes, curb, gutter, sidewalk, and limited on street parking in designated parking locations.



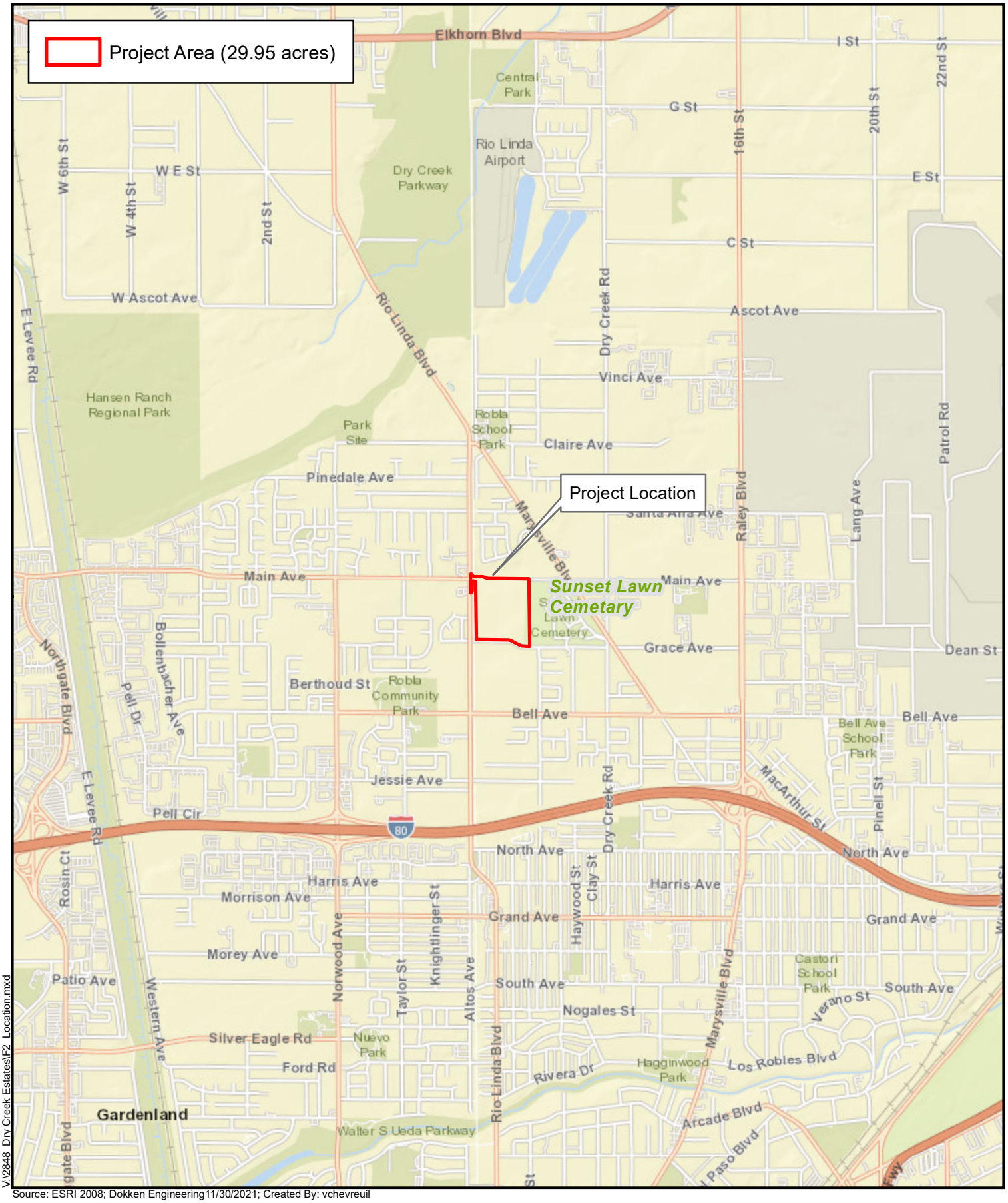
Source: ESRI 2008; Dokken Engineering11/30/2021; Created By: vchevreuil

V:\2848 Dry Creek Estates\F1 Vicinity.mxd

0 1 2 3 Miles

FIGURE 1
Project Vicinity

Dry Creek Estates Project
Sacramento County, California



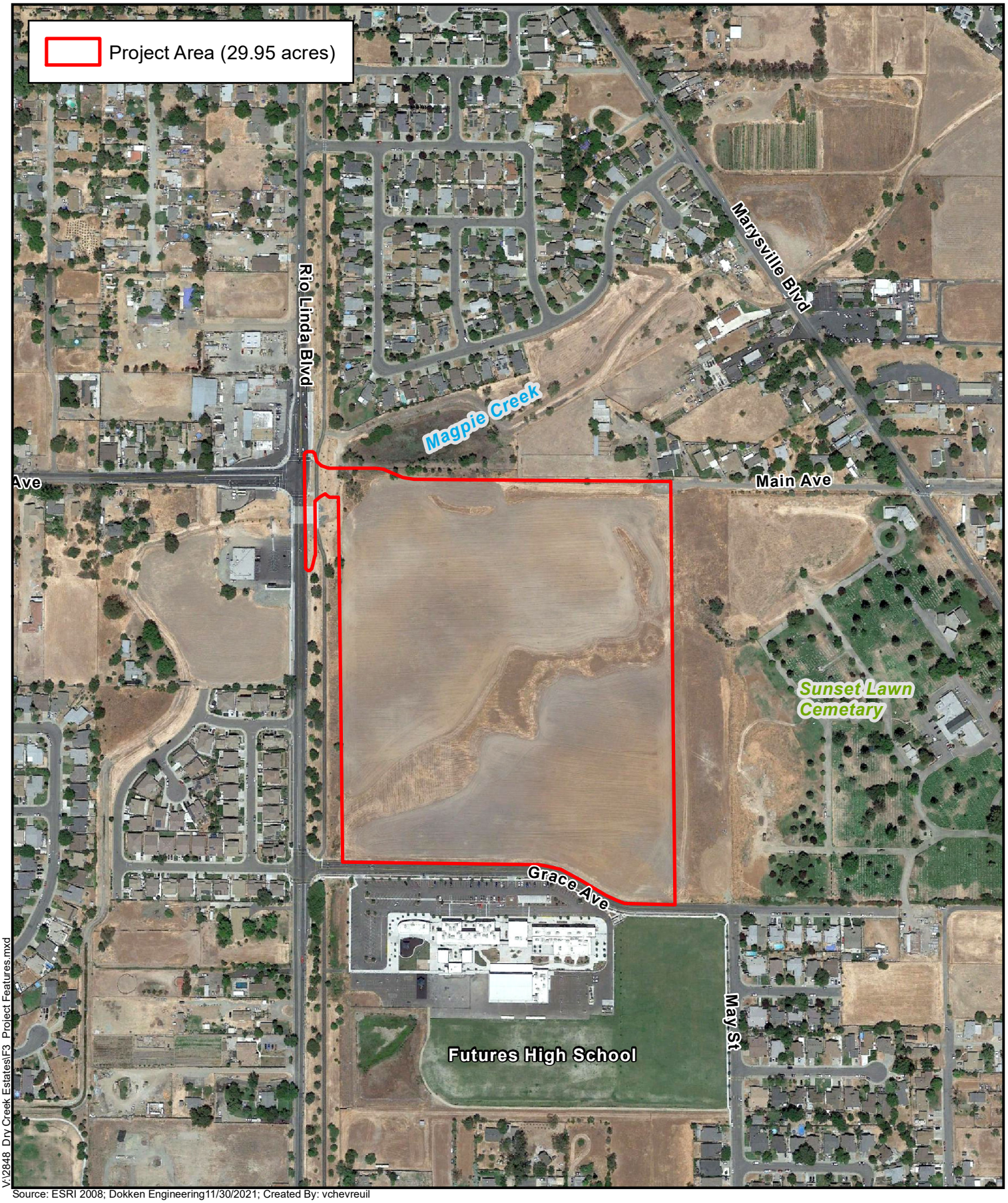
Source: ESRI 2008; Dokken Engineering11/30/2021; Created By: vchevreuil

V:\2848 Dry Creek Estates\F2 Location.mxd

0 0.5 1 Miles

FIGURE 2
ProjectLocation

Dry Creek Estates Project
Sacramento County, California



V:\2848 Dry Creek Estates\F3 Project Features.mxd

Source: ESRI 2008; Dokken Engineering11/30/2021; Created By: vchevreuil

1 in = 400 ft

0 500 1,000 1,500 Feet

FIGURE 3
Project Location

Dry Creek Estates Project
Sacramento County, California

Chapter 3. Fundamentals of Traffic Noise

The following is a brief discussion of fundamental traffic noise concepts.

3.1. Sound, Noise, and Acoustics

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is defined as loud, unexpected, or annoying sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receptor determine the sound level and characteristics of the noise perceived by the receptor. The field of acoustics deals primarily with the propagation and control of sound.

3.1. Frequency

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

3.2. Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this huge range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB). The threshold of hearing for young people is about 0 dB, which corresponds to 20 mPa.

3.3. Addition of Decibels

Because decibels are logarithmic units, SPL cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to

a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one automobile produces an SPL of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB—rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level 5 dB louder than one source.

3.4. A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz, and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an "A-weighted" sound level (expressed in units of dBA) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgements correlate well with the A-scale sound levels of those sounds. Other weighting networks have been devised to address high noise levels or other special problems (e.g., B-, C-, and D-scales), but these scales are rarely used in conjunction with highway-traffic noise. Noise levels for traffic noise reports are typically reported in terms of A-weighted decibels or dBA. Table 1 describes typical A-weighted noise levels for various noise sources.

Table 1. Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	**— 70 —**	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	**— 60 —**	
		Large business office
Quiet urban daytime	**— 50 —**	Dishwasher next room
Quiet urban nighttime	**— 40 —**	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	**— 0 —**	Lowest threshold of human hearing

Source: Caltrans 2013.

3.5. Human Response to Changes in Noise Levels

As discussed above, doubling sound energy results in a 3-dB increase in sound. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different than what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels, when exposed to steady, single-frequency ("pure-tone") signals in the midfrequency (1,000 Hz–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness. Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound, would generally be perceived as barely detectable.

3.6. Noise Descriptors

Noise in our daily environment fluctuates over time. Some fluctuations are minor, but some are substantial. Some noise levels occur in regular patterns, but others are random. Some noise levels fluctuate rapidly, but others slowly. Some noise levels vary widely, but others are relatively constant. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors most commonly used in traffic noise analysis.

- **Equivalent Sound Level (L_{eq}):** L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound that actually occurs during the same period. The 1-hour A-weighted equivalent sound level ($L_{eq}[h]$) is the energy average of A-weighted sound levels occurring during a one-hour period, and is the basis for noise abatement criteria (NAC) used by Caltrans and FHWA.

- **Percentile-Exceeded Sound Level (L_{xx}):** L_{xx} represents the sound level exceeded for a given percentage of a specified period (e.g., L_{10} is the sound level exceeded 10% of the time, and L_{90} is the sound level exceeded 90% of the time).

- **Maximum Sound Level (L_{max}):** L_{max} is the highest instantaneous sound level measured during a specified period.

- **Day-Night Level (L_{dn}):** L_{dn} is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to A-weighted sound levels occurring during nighttime hours between 10 p.m. and 7 a.m.

- **Community Noise Equivalent Level (CNEL):** Similar to L_{dn}, CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to A-weighted sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m., and a 5-dB penalty applied to the A-weighted sound levels occurring during evening hours between 7 p.m. and 10 p.m.

3.7. Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on the following factors.

3.7.1. Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 decibels for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path, and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 decibels for each doubling of distance from a line source.

3.7.2. Ground Absorption

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water,), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor, such as soft dirt, grass, or scattered bushes and trees), an excess ground-attenuation value of 1.5 decibels per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 decibels per doubling of distance.

3.7.3. Atmospheric Effects

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) from the highway due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

3.7.4. Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often

constructed between a source and a receptor specifically to reduce noise. A barrier that breaks the line of sight between a source and a receptor will typically result in at least 5 dB of noise reduction. Taller barriers provide increased noise reduction. Vegetation between the highway and receptor is rarely effective in reducing noise because it does not create a solid barrier.

Chapter 4. Fundamentals of Vibration

4.1. Vibration Descriptors

Vibration is an oscillatory motion which can be described in terms of the displacement, velocity, or acceleration. The peak particle velocity (PPV) is defined as the maximum instantaneous positive or negative peak of the vibration signal. PPV is often used in monitoring of blasting vibration since it is related to the stresses that are experienced by buildings. The PPV is normally described in inches per second in the USA (Federal Transit Administration, May 2006).

4.2. Human Response to Vibration

Ground vibration can be annoying to people. The primary effect of perceptible vibration is often a concern. The vibration of floors and walls may cause perceptible vibration, rattling of items such as windows or dishes on shelves, or a rumble noise. The rumble is the noise radiated from the motion of surfaces, also known as ground-borne noise (Federal Transit Administration, May 2006). However, secondary effects, such as the rattling of a china cabinet, can also occur, even when vibration levels are well below perception. Any effect (primary perceptible vibration, secondary effects, or a combination of the two) can lead to annoyance.

4.3. Vehicle Operation Vibration

Vehicles traveling on a smooth roadway are rarely, if ever, the source of perceptible ground vibration. However, discontinuities in roadway pavement often develop as the result of settling of pavement sections, cracking, and faulting. When this occurs, vehicles passing over the pavement discontinuities impart energy into the ground, generating vibration. In most cases, only heavy trucks, not automobiles, are the source of perceptible vibration. Trucks traveling over pavement discontinuities also often rattle and make noise, which tends to make the event more noticeable when the ground vibration generated may only be barely noticeable.

Because vibration from the vehicle operations is almost always the result of pavement discontinuities, the solution is to smooth the pavement to eliminate the discontinuities. This step will eliminate perceptible vibration from vehicle operations in virtually all cases.

4.4. Construction Vibration

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings founded on the soil in the vicinity of the construction site respond to these vibrations, with varying results ranging from no perceptible effects at the lowest levels, low rumbling sounds and perceptible vibrations at moderate levels, and slight damage at the highest levels.

Vibration generated by construction activity has the potential to damage structures. This damage could be structural damage, such as cracking of floor slabs, foundations, columns, beams, or wells, or cosmetic architectural damage, such as cracked plaster, stucco, or tile. However, ground vibrations from construction activities do not often reach the levels that can damage structures, but they can achieve the audible and feelable ranges in buildings very close to the site. A possible exception is the case of fragile buildings, many of them old, where special care must be taken to avoid damage. The construction criteria include special consideration for such buildings. The construction activities that typically generate the most severe vibrations are blasting and impact pile driving.

In most cases, vibration induced by typical construction equipment does not result in adverse effects on people or structures. Noise from the equipment typically overshadows any meaningful ground vibration effects on people. Some equipment, however, including vibratory rollers and crack-and-seat equipment, can create high vibration levels. In cases where prolonged annoyance or damage from construction vibrations is not expected, a qualitative assessment is appropriate. Such an assessment should include a description of the duration and the type of equipment to be used during the construction, with an explanation of how the ground-borne vibration will be maintained at an acceptable level.

Chapter 5. Federal Regulations and State Policies

This report focuses on City CEQA requirements as discussed below. In identifying noise impacts, primary consideration is given to exterior areas of frequent human use. In situations where there are no exterior activity areas, or where the exterior activities occur far from the roadway or physically shielded in a manner that prevents an impact on exterior activities, the interior criterion is used as the basis for determining a noise impact.

5.1. State Regulations and Policies

5.1.1. California Environmental Quality Act (CEQA)

This report is in conformance with the California Environmental Quality Act (CEQA) (Public Resources Code 21000-21177) and the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387). Under CEQA, the baseline noise level is compared to the build noise level. The assessment entails looking at the setting of the noise impact and then how large or perceptible any noise increase would be in the given area. Key considerations include: the uniqueness of the setting, the sensitive nature of the noise receptors, the magnitude of the noise increase, the number of residences affected, and the absolute noise level

The significance of noise impacts under CEQA are addressed in the environmental document rather than the NSR. Even though the NSR does not specifically evaluate the significance of noise impacts under CEQA, it must contain the technical information that is needed to make that determination in the environmental document.

5.1.2. Section 216 of the California Streets and Highways Code

The proposed project is subject to Section 216 of the California Streets and Highways Code. Section 216 of the California Streets and Highways Code relates to the noise effects of a proposed freeway project on public and private elementary and secondary schools. Under Section 216(c), a noise impact occurs if, as a result of a proposed freeway project, noise levels exceed 52 dBA-L_{eq}(h) in the interior of public or private elementary or secondary classrooms, libraries, multipurpose rooms, or spaces.

If a project results in a noise impact under this code, noise abatement must be provided to reduce classroom noise to a level that is at or below 52 dBA-L_{eq}(h). Under Section 216(d), if the noise levels generated from freeway and roadway sources exceed 52 dBA-

L_{eq}(h) prior to the construction of the proposed freeway project, then noise abatement must be provided to reduce the noise to the level that existed prior to construction of the project.

5.2. Local Regulations and Standards

5.2.1. City of Sacramento 2035 General Plan

The City of Sacramento has the following noise and vibration goals and policies in the Environmental Constraints chapter of the City of Sacramento 2035 General Plan:

EC 3.1.1 **Exterior Noise Standards.** The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown below to the extent feasible.

Table 2. Exterior Noise Compatibility Standards for Various Land Uses

Land Use Type	Highest Level of Noise Exposure That is Regarded as "Normally Acceptable"[a] (L_{dn}[b] or CNEL[c])
Residential – Low Density Single Family, Duplex, Mobile Homes	60 dBA[d,e]
Residential – Multi-family	65 dBA
Urban Residential Infill and Mixed-Use Projects	70 dBA
Transient Lodging – Motels, Hotels	65 dBA
Schools, Libraries, Churches, Hospitals, Nursing Homes	70 dBA
Auditoriums, Concert Halls, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70 dBA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75 dBA
Office Buildings – Business, Commercial and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agri	75 dBA

a. As defined in the Guidelines, "Normally Acceptable" means that the "specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements."
b. Ldn or Day Night Average Level is an average 24-hour noise measurement that factors in day and night noise levels.
c. CNEL or Community Noise Equivalent Level measurements are a weighted average of sound levels gathered throughout a 24-hour period.
d. Applies to the primary open space area of a detached single-family home, duplex, or mobile home, which is typically the backyard or fenced side yard, as measured from the center of the primary open space area (not the property line). This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.
e. dBA or A-weighted decibel scale is a measurement of noise levels.
f. The exterior noise standard for the residential area west of McClellan Airport known as McClellan Heights/Parker Homes is 65 dBA.
g. Applies to the primary open space areas of townhomes and multi-family apartments or condominiums (private year yards for townhomes; common courtyards, roof gardens, or gathering spaces for multi-family developments).These standards shall not apply to balconies or small attached patios in multistoried multi-family structures.
h. With land use designations of Central Business District, Urban Neighborhood (Low, Medium, or High) Urban Center (Low or High), Urban Corridor (Low or High).
i. All mixed-use projects located anywhere in the City of Sacramento
j. See notes d and g above for definition of primary open space areas for single-family and multi-family developments.

EC 3.1.2 **Exterior Incremental Noise Standards.** The City shall require noise mitigation for all development that increases existing noise levels by more than the allowable increment shown below to the extent feasible.

Table 3. Exterior Incremental Noise Impact Standards for Noise-Sensitive Uses (dBA)

Residences and buildings where people normally sleep[a]		Institutional land uses with primarily daytime and evening uses[b]	
Existing L_{dn}	Allowable Noise Increment	Existing Peak Hour L_{eq}	Allowable Noise Increment
45	8	45	12
50	5	50	9
55	3	55	6
60	2	60	5
65	1	65	3
70	1	70	3
75	0	75	1
80	0	80	0

a. This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.
b. This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material.

EC 3.1.3 **Interior Noise Standards.** The City shall require new development to include noise mitigation to assure acceptable interior noise levels appropriate to the land use type: 45 dBA Ldn (with windows closed) for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep; and 45 dBA Leq (peak hour with windows closed) for office buildings and similar uses.

EC 3.1.5 **Interior Vibration Standards.** The City shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria.

EC 3.1.6 **Effects of Vibration.** The City shall consider potential effects of vibration when reviewing new residential and commercial projects that are proposed in the vicinity of rail lines or light rail lines.

EC 3.1.7 **Vibration.** The City shall require an assessment of the damage potential of vibration-induced construction activities, highways, and rail lines in close proximity to historic buildings and archaeological sites and require all feasible measures be implemented to ensure no damage would occur.

EC 3.1.10 **Construction Noise.** The City shall require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on these uses, to the extent feasible.

5.2.2. City of Sacramento Municipal Code (Noise Ordinance)

The Sacramento Municipal Code includes noise regulations in Title 8 – Health and Safety, Chapter 8.68 – Noise Control (referred to generally as the Noise Ordinance). Of the regulations in Chapter 8.68, not all are applicable to the Proposed Project. The following regulations would apply to the Proposed Project:

"Section 8.68.080 exempts certain activities from Chapter 8.68, including "noise sources due to the erection (including excavation), demolition, alteration or repair of any building or structure" as long as these activities are limited to between the hours of 7 a.m. and 6 p.m. Monday through Saturday, and between the hours of 9 a.m. and 6 p.m. on Sunday. Section 8.68.080 also requires the use of exhaust and intake silencers for internal combustion engines, and provides for construction work to occur outside of the designated hours if the work is of urgent necessity and in the interest of public health and welfare for a period not to exceed three days."

Chapter 6. Study Methods and Procedures

6.1. Methods for Identifying Land Uses and Selecting Noise Measurement and Modeling Receiver Locations

A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. Although all land uses are evaluated in this analysis, the focus is on locations of frequent human use that would benefit from a lowered noise level. Accordingly, this impact analysis focuses on locations with defined outdoor activity areas, such as residential backyards.

6.2. Field Measurement Procedures

Short-term noise measurements were taken at outdoor frequent human use areas at sensitive receivers within the proposed project area. Field measurements were taken at these locations to help determine proper shielding and background noise levels. All field measurements were 15 minutes in duration and noise levels are in terms of A-weighted decibel equivalent sound level. The following is a brief description of the measurement procedures utilized during field monitoring.

- Microphones were placed 5 feet above the ground elevation for all locations.
- Sound level meters were calibrated before and after each measurement.
- Following the calibration of equipment, a windscreen was placed over the microphone.
- Frequency weighting was set on "A" and slow response.
- Results of the noise measurements were recorded on field data sheets.
- During the noise measurements, any excessive noise contamination such as barking dogs, lawn mowers, and/or aircraft fly-overs were noted.
- Wind speed, temperature, humidity, and weather conditions were observed and documented.
- The following instruments were used for field noise measurements:

- Sound Level Meter – A Larson Davis (LD) 824 System sound level meter was used to measure existing noise levels. This sound level meter and its microphone conform to the Institute of Electronic and Electric Engineers and the American National Standards Institute standards for Type 1 instruments.

- Microphone System – LD Model 2560 1.27-centimeter (0.5-inch) pressure microphone; LD Model 900 microphone preamplifier.

- Acoustic Field Calibrator – LD Model CAL250 Precision Acoustic Calibrator.

6.2.1. Short-Term Measurements

Short-term monitoring was conducted at two locations on Thursday, January 6, 2022 using a Larson Davis Model 824 Precision Type 1 sound level meters (serial number 824A3562). The calibration of the meter was checked before and after the measurement using a Larson Davis CAL200 (serial number 8534). Measurements were taken over a 15-minute period at each site. The short-term measurement locations are identified in Figure 4.

During the short-term measurements, field staff attended each meter. Minute-to-minute Leq values collected during the measurement period (typically 15 minutes in duration) were logged by the sound level meter. Dominant noise sources that were not traffic-based were observed and noted during the measurements.

Temperature, wind speed, and humidity were noted during the short-term monitoring. During the short-term measurements, winds were gentle and speeds typically ranged from 7 to 8 miles per hour (mph). Temperatures ranged from 53°F to 55°F, with relative humidity ranging from 87% to 92%. Field note data sheets are attached to this memorandum.

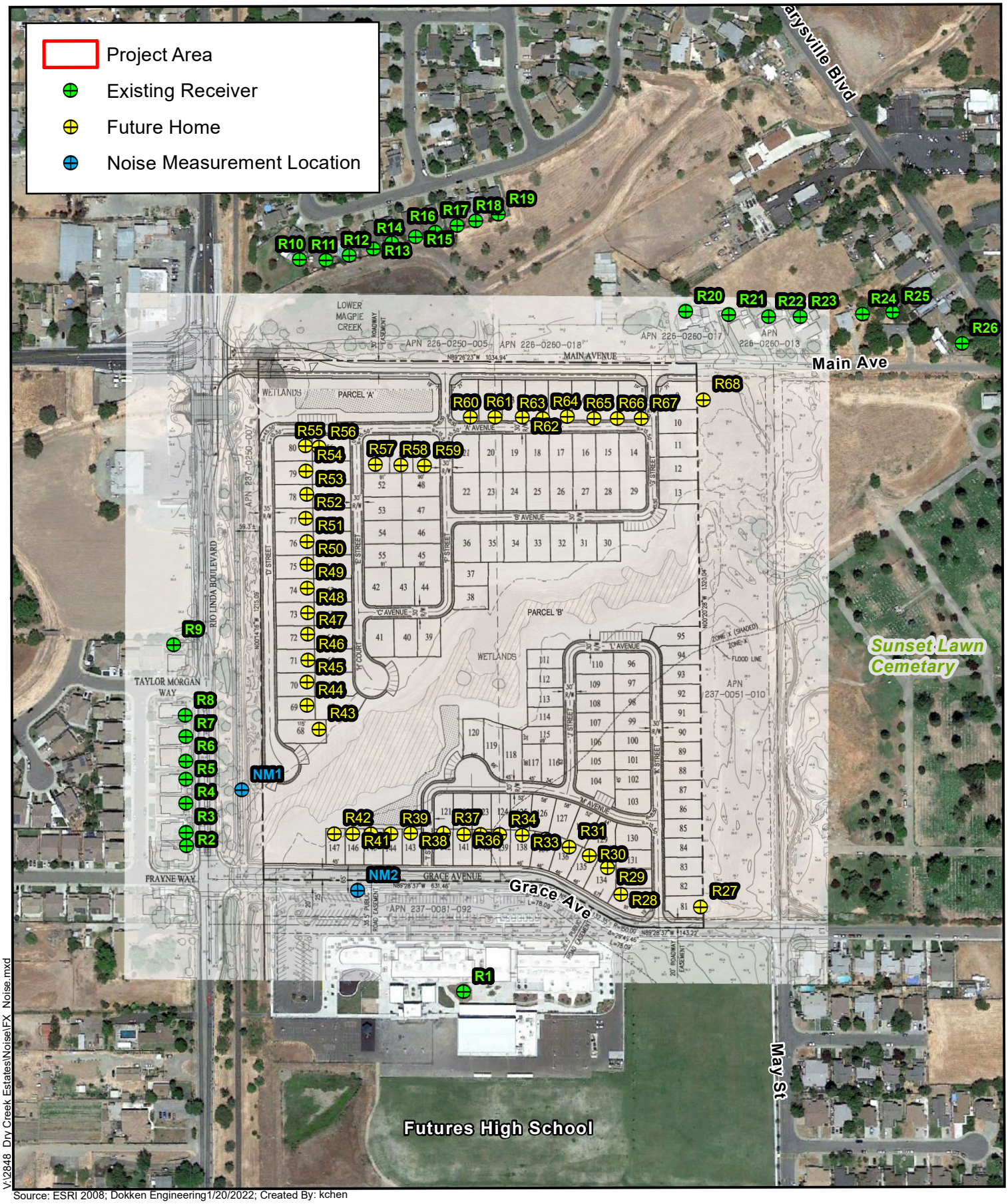
Traffic on Rio Linda Boulevard and Grace Avenue was classified and counted during short-term noise measurements. Vehicles were classified as automobiles, medium-duty trucks, or heavy-duty trucks. An automobile was defined as a vehicle with two axles and four tires that are designed primarily to carry passengers. Small vans and light trucks were included in this category. Medium-duty trucks included all cargo vehicles with two axles and six tires. Heavy-duty trucks included all vehicles with three or more axles. Posted speeds on Rio Linda Boulevard was 45 mph and 25 mph on Grace Avenue.

6.3. Traffic Noise Levels Prediction Methods

Traffic noise levels were predicted using the FHWA Traffic Noise Model Version 2.5 (TNM 2.5). Key inputs to the traffic noise model were the locations of roadways, traffic mix and speed, shielding features (e.g., topography and buildings), noise barriers, ground type, and receptors. Three-dimensional representations of these inputs were developed using field data, CAD drawings, aerials, and topographic contours provided by the project engineer.

Traffic noise was evaluated under existing conditions, future no-project conditions, and future conditions with the project alternative. Average daily traffic volumes were taken from the City of Sacramento 2035 General Plan for input into the traffic noise model. Tables A-1 to A-3 in Appendix A summarize the traffic volumes and assumptions used for modeling existing and design-year conditions with and without the project.

To validate the accuracy of the model calculations, TNM 2.5 was used to compare measured traffic noise levels to modeled noise levels at field measurement locations. For each receptor, traffic volumes counted during the short-term measurement periods were normalized to 1-hour volumes. These normalized volumes were assigned to the corresponding project area roadways to simulate the noise source strength at the roadways during the actual measurement period. Modeled and measured sound levels were then compared to determine the accuracy of the model and if additional adjustment of the model was necessary.



Source: ESRI 2008; Dokken Engineering1/20/2022; Created By: kchen

V:\2848 Dry Creek Estates\Noise\FX Noise.mxd

1 in = 300 ft

0 500 1,000 1,500 Feet

FIGURE 4
Noise Measurement and Receiver Locations

Dry Creek Estates Project
Sacramento County, California

Chapter 7. Existing Noise Environment

7.1. Existing Land Uses

A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. The noise study area, which encompasses approximately 500 feet from the project footprint, includes primarily residential uses, a high school, and a cemetery. A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. Single-family residences were identified as the predominant sensitive land use in the project area.

7.2. Noise Measurement Results

The existing noise environment of the project area was characterized by conducting short-term noise level measurements at representative noise-sensitive receiver locations.

7.2.1. Short-Term Measurements

The primary source of noise in the project area is traffic on Rio Linda Boulevard. Short-term (15-minute) noise measurements were conducted to document existing noise levels at two representative sensitive receiver locations along Rio Linda Boulevard and Grace Avenue. The noise level measurements were performed using a Larson Davis Model 824 Type 1 sound level meter. Table 4 describes the physical location of the noise monitoring and the results of these measurements. Noise measurement field monitoring forms are located in Appendix C.

Table 4. Short-Term Measurement Results

Position	Location	Land Uses	Start Time	Duration (minutes)	Measured L_{eq}	Direction	Autos	Medium Trucks	Heavy Trucks	Bus	Moto	Observed Speed (mph)
NM-1	Sacramento Northern Bike Trail facing west toward Rio Linda Boulevard	Residential	4:42 pm	15	63.7	Northbound	82	1	0	0	0	45 mph
						Southbound	80	0	0	0	1	
NM-2	Futures High School facing north toward Grace Avenue	Residential	5:01 pm	15	55.8	Eastbound	4	0	0	0	0	25 mph
						Westbound	4	0	0	0	0	

During the measurement period (15 minutes in duration), dominant noise sources were identified and logged. The calibration of the meter was checked before and after the measurement using Larson-Davis Model CAL250 calibrator. Temperature, wind speed, and humidity were recorded manually during the short-term monitoring session.

During the short-term measurements, wind speeds typically ranged from 15 to 21 miles per hour (mph). Temperatures ranged from 63 to 66°F, with relative humidity typically 15 to 19 percent.

7.2.2. Model Calibration

Noise measurements for the calibration were conducted with simultaneous traffic counts at two (2) locations on January 6, 2022. These measurements were conducted to calibrate the TNM 2.5 model. Concurrent with the measurements, traffic volumes were recorded through the use of a video camera. Traffic speeds were recorded by driving on the roadways immediately after a calibration measurement. The traffic counts were tabulated according to three vehicles types, including automobiles, medium trucks (2-axle with 6-wheels but not including pick-up trucks) and heavy trucks (3 or more axles). As a general rule, the noise model is considered to be calibrated if the field measured noise levels versus the modeled noise levels (using field collected traffic data) agree within 3 dB of each other. If differences are more than 3 dB, refinement of the noise model is performed until there is agreement between the two values. If after thorough reevaluation calibration still cannot be achieved due to complex topography or other unusual circumstances, then a calibration constant is added such that the measured versus modeled values agree before any predictions can be made with the model.

Table 5 shows the representative modeled receiver locations, measured existing ambient noise level, and the modeled existing noise levels using traffic counts during noise monitoring.

Table 5. Model Calibration

Receiver ID	Measured Leq, dBA	Modeled Leq, dBA	Difference
NM-1	63.7	62.5	-1.2
NM-2	55.8	53.0	-2.8

Source: Dokken Engineering, January 2022

The predicted sound levels are within 3 dB of the measured sound levels and considered to be in reasonable agreement with the measured sound levels. Therefore, the noise model is considered to be calibrated and accurate.

7.2.3. Existing Noise Levels

The primary existing noise sources in the project area are transportation facilities. Traffic traveling on Rio Linda Boulevard is the main source of traffic noise in the project

vicinity. The FHWA TNM 2.5 was used to evaluate traffic-related noise conditions in the vicinity of the project site. Since City of Sacramento noise standards are expressed in Ldn/CNEL, TNM 2.5 was used to estimate noise levels expressed in dBA Lden, the level of noise expressed as a 24-hour average (also known as CNEL).

Average Daily Traffic (ADT) volumes for Rio Linda Bouelvard were taken from the City of Sacramento 2035 General Plan and extrapolated to the existing year of 2022 using population growth rates for North Sacramento from the City of Sacramento 2035 General Plan Housing Element. Traffic volumes for Grace Avenue were extrapolated from traffic counts taken during the noise measurements. The ADT counts were then used as inputs in TNM 2.5 to estimate noise levels in the existing condition in dBA CNEL. The modelled existing noise results are provided in Appendix B.

Table 5 shows the existing noise levels in the project area. Table 5 also lists the location and type of development for each modeled receiver location. The ambient noise levels measured were used to establish the existing noise level at many locations within the project area. As shown in Table 5, existing residences at R1 through R8 (west of Rio Linda Boulevard, along Debralee Way) may be exposed to exterior noise levels exceeding the City of Sacramento noise threshold of 60 dBA CNEL without the project.

Table 6. Existing Exterior Noise Levels

Receiver No.	Location	Type of Land Use	Number of Dwelling Units	Modeled Exterior Noise Level (CNEL)
R1	Futures High School	School	-	52.2
R2	4600 Debralee Way	Single-Family Residence	1	**60.5**
R3	4610 Debralee Way	Single-Family Residence	1	**61.4**
R4	4620 Debralee Way	Single-Family Residence	1	**61.9**
R5	4630 Debralee Way	Single-Family Residence	1	**62.2**
R6	4640 Debralee Way	Single-Family Residence	1	**62.2**
R7	4650 Debralee Way	Single-Family Residence	1	**62.2**
R8	4660 Debralee Way	Single-Family Residence	1	**62.3**
R9	771 Taylor Morgan Way	Single-Family Residence	1	58.7
R10	4915 Wind Creek Drive	Single-Family Residence	1	52.5
R11	4911 Wind Creek Drive	Single-Family Residence	1	51.7
R12	4907 Wind Creek Drive	Single-Family Residence	1	50.5
R13	4903 Wind Creek Drive	Single-Family Residence	1	49.5
R14	4899 Wind Creek Drive	Single-Family Residence	1	48.8
R15	4895 Wind Creek Drive	Single-Family Residence	1	48.1

Table 6. Existing Exterior Noise Levels

Receiver No.	Location	Type of Land Use	Number of Dwelling Units	Modeled Exterior Noise Level (CNEL)
R16	4891 Wind Creek Drive	Single-Family Residence	1	47.5
R17	4887 Wind Creek Drive	Single-Family Residence	1	47.0
R18	4883 Wind Creek Drive	Single-Family Residence	1	46.5
R19	4879 Wind Creek Drive	Single-Family Residence	1	46.1
R20	933 Main Avenue	Single-Family Residence	1	49.4
R21	935 Main Avenue	Single-Family Residence	1	46.7
R22	1005 Main Avenue	Single-Family Residence	1	35.6
R23	1009 Main Avenue	Single-Family Residence	1	36.6
R24	1013 Main Avenue	Single-Family Residence	1	44.2
R25	1015 Main Avenue	Single-Family Residence	1	43.7
R26	4805 Marysville Boulevard	Single-Family Residence	1	51.3

Bold indicates noise levels exceeding City of Sacramento noise threshold

Chapter 8. Future Noise Environment and Impacts

This section discusses the predicted traffic noise level under future conditions (with and without the project), identifies traffic noise impacts, and considers noise mitigation. The results of this analysis are provided Table B-1 contained in the appendix to the NSR.

8.1. Future Noise Environment and Impacts

Table B-1 in Appendix B summarizes the traffic noise modeling results for future 2035 conditions with and without the project.

The proposed project would build approximately 147 single family homes on the property. Homes will be built in two clusters with 80 homes on the north side (represented by R43 through R68) and 67 on the south side of the project site (represented by R27 through R42). These receivers represent future homes along the project site boundary adjacent to Main Avenue, Rio Linda Boulevard, and Grace Avenue that would be most exposed to traffic noise along these roadways. Furthermore, as receivers R27 through R68 would only be developed as a part of the proposed project, they were only analyzed in the Future Build scenario.

Future Average Daily Traffic (ADT) volumes on Rio Linda Boulevard were taken from the City of Sacramento 2035 General Plan. For the new Main Avenue connection that would be built as part of the project, future traffic volumes were predicted based on trips generated by the 80 new homes on the north side that would be accessed by Main Avenue. For Grace Avenue, traffic volumes were predicted based on trips generated by the 67 new homes on the south side of the property that would be accessed Grace Avenue, as well as the adjacent Futures High School.

8.1.1. Future Exterior Noise Levels

a) Would the project result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases?

The future traffic noise modeling results in Table B-1, and summarized in Table 7 below, indicate that exterior noise levels without the proposed project would range between 36.2 dBA CNEL and 63.1 dBA CNEL. Exterior noise levels at R2 through R8 would continue

to be exposed to noise levels exceeding the City of Sacramento 60 dBA acceptable noise threshold.

Table 7. Comparison of Estimated Future Exterior Noise Levels in 2035

Receiver No.	Location	Predicted Noise Level for No-Build (2035) (dBA CNEL)	Predicted Noise Level for Build (2035) (dBA CNEL)	Noise Difference 2035 No-Build to 2035 Build (dBA CNEL)
R1	Futures High School	52.9	50.6	-2.3
R2	4600 Debralee Way	**61.3**	**61.7**	0.4
R3	4610 Debralee Way	**62.2**	**62.6**	0.4
R4	4620 Debralee Way	**62.7**	**63.1**	0.4
R5	4630 Debralee Way	**63.0**	**63.4**	0.4
R6	4640 Debralee Way	**63.0**	**63.4**	0.4
R7	4650 Debralee Way	**63.0**	**63.4**	0.4
R8	4660 Debralee Way	**63.1**	**63.5**	0.4
R9	771 Taylor Morgan Way	59.5	59.9	0.4
R10	4915 Wind Creek Drive	53.3	53.7	0.4
R11	4911 Wind Creek Drive	52.5	52.8	0.3
R12	4907 Wind Creek Drive	51.3	51.4	0.1
R13	4903 Wind Creek Drive	50.3	50.3	0.0
R14	4899 Wind Creek Drive	49.6	49.5	-0.1
R15	4895 Wind Creek Drive	48.9	48.7	-0.2
R16	4891 Wind Creek Drive	48.3	48.0	-0.3
R17	4887 Wind Creek Drive	47.7	47.4	-0.3
R18	4883 Wind Creek Drive	47.3	46.9	-0.4
R19	4879 Wind Creek Drive	46.8	46.3	-0.5
R20	933 Main Avenue	50.2	48.8	-1.4
R21	935 Main Avenue	47.2	47.5	0.3
R22	1005 Main Avenue	36.2	38.1	1.9
R23	1009 Main Avenue	37.2	38.7	1.5
R24	1013 Main Avenue	44.3	44.5	0.2
R25	1015 Main Avenue	44.3	40.7	-3.6
R26	4805 Marysville Boulevard	51.4	50.9	-0.5
R27	Lot 81	-	50.7	-
R28	Lot 133	-	47.0	-
R29	Lot 134	-	40.4	-
R30	Lot 135	-	42.0	-
R31	Lot 136	-	44.8	-
R32	Lot 137	-	46.8	-
R33	Lot 138	-	50.0	-
R34	Lot 139	-	50.7	-

Table 7. Comparison of Estimated Future Exterior Noise Levels in 2035

Receiver No.	Location	Predicted Noise Level for No-Build (2035) (dBA CNEL)	Predicted Noise Level for Build (2035) (dBA CNEL)	Noise Difference 2035 No-Build to 2035 Build (dBA CNEL)
R35	Lot 140	-	51.4	-
R36	Lot 141	-	51.9	-
R37	Lot 142	-	52.8	-
R38	Lot 143	-	54.3	-
R39	Lot 144	-	55.2	-
R40	Lot 145	-	56.5	-
R41	Lot 146	-	57.7	-
R42	Lot 147	-	58.9	-
R43	Lot 68	-	42.7	-
R44	Lot 69	-	40.8	-
R45	Lot 70	-	40.9	-
R46	Lot 71	-	41.3	-
R47	Lot 72	-	42.3	-
R48	Lot 73	-	41.7	-
R49	Lot 74	-	42.0	-
R50	Lot 75	-	42.2	-
R51	Lot 76	-	42.7	-
R52	Lot 77	-	41.5	-
R53	Lot 78	-	43.0	-
R54	Lot 79	-	42.8	-
R55	Lot 80	-	47.8	-
R56	Lot 56	-	56.8	-
R57	Lot 51	-	43.6	-
R58	Lot 50	-	43.8	-
R59	Lot 49	-	43.5	-
R60	Lot 1	-	50.0	-
R61	Lot 2	-	47.9	-
R62	Lot 3	-	46.8	-
R63	Lot 4	-	46.2	-
R64	Lot 5	-	45.4	-
R65	Lot 6	-	44.8	-
R66	Lot 7	-	44.2	-
R67	Lot 8	-	43.7	-
R68	Lot 9	-	47.6	-

Bold indicates noise levels exceeding City of Sacramento noise threshold
Source: FHWA Traffic Noise Model 2.5

With construction of the proposed project, future exterior noise levels would range between 38.1 dBA and 63.5 dBA CNEL in 2035. Exterior noise levels at receivers R2 through R8 would continue to be exposed to noise levels exceeding the City of Sacramento 60 dBA acceptable noise threshold. However, the project would result in a 0.4 dBA increase in noise at these receivers. Under the City of Sacramento's Exterior Incremental Noise Impact Standards for Noise-Sensitive Uses (shown above in Table 3), this is not considered a significant increase in noise that would require mitigation. No other existing receivers would be exposed to unacceptable noise levels in 2035 with the project. Therefore, the proposed project would not result in noise level increases that would cause an exceedance of the normally acceptable category for land uses in the project area.

Receivers R27 through R68 represent new homes that would be constructed as part of the proposed project along the project site boundary adjacent to Main Avenue, Rio Linda Boulevard, and Grace Avenue. These receivers would be most exposed to traffic noise along these roadways. As shown in Table 7, no receivers would be exposed to exterior noise levels above the upper value of the normally acceptable category for single family homes. Therefore, impacts are **Less than Significant**.

8.1.2. Future Interior Noise Levels

b) Would the project result in residential interior noise levels of 45 dBA Ldn or greater caused by noise level increases due to the project?

Standard residential design (with windows closed) will provide approximately 20 dBA of attenuation. Table 8 shows the estimated interior noise levels at each noise receiver location representing a residence with exterior-to-interior noise attenuation.

Table 8. Comparison of Estimated Future Interior Noise Levels in 2035

Receiver No.	Location	Predicted Noise Level for No-Build (2035) (dBA CNEL)	Predicted Noise Level for Build (2035) (dBA CNEL)	Noise Difference 2035 No-Build to 2035 Build (dBA CNEL)
R1	Futures High School	32.9	30.6	-2.1
R2	4600 Debralee Way	41.3	41.7	0.4
R3	4610 Debralee Way	42.2	42.6	0.4
R4	4620 Debralee Way	42.7	43.1	0.4
R5	4630 Debralee Way	43.0	43.4	0.4
R6	4640 Debralee Way	43.0	43.4	0.4
R7	4650 Debralee Way	43.0	43.4	0.4
R8	4660 Debralee Way	43.1	43.5	0.4
R9	771 Taylor Morgan Way	39.5	39.9	0.4
R10	4915 Wind Creek Drive	33.3	33.7	0.4
R11	4911 Wind Creek Drive	32.5	32.8	0.3
R12	4907 Wind Creek Drive	31.3	31.4	0.1
R13	4903 Wind Creek Drive	30.3	30.3	0
R14	4899 Wind Creek Drive	29.6	29.5	-0.1
R15	4895 Wind Creek Drive	28.9	28.7	-0.2
R16	4891 Wind Creek Drive	28.3	28.0	-0.3
R17	4887 Wind Creek Drive	27.7	27.4	-0.3
R18	4883 Wind Creek Drive	27.3	26.9	-0.4
R19	4879 Wind Creek Drive	26.8	26.3	-0.5
R20	933 Main Avenue	30.2	28.8	-1.4
R21	935 Main Avenue	27.2	27.5	0.3
R22	1005 Main Avenue	16.2	18.1	1.9
R23	1009 Main Avenue	17.2	18.7	1.5
R24	1013 Main Avenue	24.3	24.5	0.2
R25	1015 Main Avenue	24.3	20.7	-3.6
R26	4805 Marysville Boulevard	31.4	30.9	-0.5
R27	Lot 81	-	30.7	-
R28	Lot 133	-	27.0	-

Table 8. Comparison of Estimated Future Interior Noise Levels in 2035

Receiver No.	Location	Predicted Noise Level for No-Build (2035) (dBA CNEL)	Predicted Noise Level for Build (2035) (dBA CNEL)	Noise Difference 2035 No-Build to 2035 Build (dBA CNEL)
R29	Lot 134	-	20.4	-
R30	Lot 135	-	22.0	-
R31	Lot 136	-	24.8	-
R32	Lot 137	-	26.8	-
R33	Lot 138	-	30.0	-
R34	Lot 139	-	30.7	-
R35	Lot 140	-	31.4	-
R36	Lot 141	-	31.9	-
R37	Lot 142	-	32.8	-
R38	Lot 143	-	34.3	-
R39	Lot 144	-	35.2	-
R40	Lot 145	-	36.5	-
R41	Lot 146	-	37.7	-
R42	Lot 147	-	38.9	-
R43	Lot 68	-	22.7	-
R44	Lot 69	-	20.8	-
R45	Lot 70	-	20.9	-
R46	Lot 71	-	21.3	-
R47	Lot 72	-	22.3	-
R48	Lot 73	-	21.7	-
R49	Lot 74	-	22.0	-
R50	Lot 75	-	22.2	-
R51	Lot 76	-	22.7	-
R52	Lot 77	-	21.5	-
R53	Lot 78	-	23.0	-
R54	Lot 79	-	22.8	-
R55	Lot 80	-	27.8	-
R56	Lot 56	-	36.8	-
R57	Lot 51	-	23.6	-
R58	Lot 50	-	23.8	-
R59	Lot 49	-	23.5	-
R60	Lot 1	-	30.0	-
R61	Lot 2	-	27.9	-
R62	Lot 3	-	26.8	-
R63	Lot 4	-	26.2	-
R64	Lot 5	-	25.4	-
R65	Lot 6	-	24.8	-

Table 8. Comparison of Estimated Future Interior Noise Levels in 2035

Receiver No.	Location	Predicted Noise Level for No-Build (2035) (dBA CNEL)	Predicted Noise Level for Build (2035) (dBA CNEL)	Noise Difference 2035 No-Build to 2035 Build (dBA CNEL)
R66	Lot 7	-	24.2	-
R67	Lot 8	-	23.7	-
R68	Lot 9	-	27.6	-

The future interior results summarized in Table 8 indicate that the future interior noise levels would range between 20.7 dBA CNEL and 43.5 dBA CNEL with the proposed project. No analyzed receivers would be exposed to residential interior noise levels of 45 dBA Ldn or greater caused by noise level increases due to the project. Impacts would be **Less than Significant.**

Chapter 9. Construction Noise

c) Would the project result in construction noise levels that exceed the standards in the City of Sacramento General Plan or Noise Ordinance?

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction.

Table 9 summarizes noise levels produced by construction equipment that is commonly used on roadway construction projects. Construction equipment is expected to generate noise levels ranging from 80 to 89 dB at a distance of 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance.

Table 9. Construction Equipment Noise

Equipment	Maximum Noise Level (dBA at 50 feet)
Scrapers	89
Bulldozers	85
Heavy Trucks	88
Backhoe	80
Pneumatic Tools	85
Concrete Pump	82

Source: Federal Transit Administration, 2006. See also: http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm

In accordance with Section 8.68.080 of the City of Sacramento Noise Ordinance, Measure **NOI-1** will be required to be implemented by the contractor during construction of the proposed project:

NOI — 1: The following measures are required to minimize potential noise impacts during construction:

- Do not exceed 86 dBA Lmax at 50 feet from the job site activities from 7 a.m. and 6 p.m. Monday through Saturday, and between the hours of 9 a.m. and 6 p.m. on Sunday.
- Equip an internal combustion engine with the manufacturer recommended exhaust and intake silencers.
- Do not operate an internal combustion engine on the job site without the appropriate muffler or exhaust and intake silencer.

Adherence to standard construction Best Management Practices and measure **NOI-1** would ensure construction noise levels are in compliance with the City of Sacramento General Plan and Noise Ordinance. Impacts would be **Less than Significant with Mitigation Incorporated**.

Chapter 10. Vibratory Impacts

d) Would the project permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction?

The proposed project would result in the construction of 147 new homes. Operation of the proposed project would not perceptibly increase groundborne vibration or groundborne noise on the proposed project because operation of the proposed project would not involve vibration creating activities.

Construction of the proposed project could temporarily increase groundborne vibration or noise in the project area. Table 10 provides an estimate of vibration levels associated with construction activities for each piece of equipment. These are based on a wide range of soil conditions.

Table 10. Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 ft (in/sec)
Pile Driver (impact)	1.518
Pile Drive (sonic)	0.734
Vibratory Roller	0.210
Hoe Ram	0.089
Large Bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

Source: Federal Transit Administration, 2006. See also: http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm

During construction, the equipment with the greatest potential for vibration impacts would be generated by vibratory rollers, which would compact soil over the project site. Based on the information shown in Table 10, vibratory rollers could cause continuous vibration levels up to 0.210 PPV to buildings within 25 feet of the project site during construction. Therefore, construction of the proposed project would not result in exposure to vibration-peak-particle velocities greater than 0.5 inches per second. Impacts would be **Less than Significant**.

e) Would the project permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations?

There are no new highway or railway operations associated with the construction of the proposed project. In addition, the new residences that would be constructed as part of the proposed project would not be in the vicinity of adjacent highways or rail lines that would cause significant vibratory impacts. The nearest highway is U.S. 80 approximately 0.6 miles to the south, and the nearest railroad is approximately 1.4 miles to the west. There would be **No Impact**.

f) Would the project permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic?

No historic buildings or archaeological sites have been identified within the project area. The majority of buildings in the project vicinity that would be impacted by construction are residential structures, none of which are considered extremely fragile, fragile, or historic buildings. None of the buildings occur within 25 feet of where soil compaction would occur. Therefore, no historic buildings or archaeological sites would be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic. There would be **No Impact**.

Chapter 11. Aircraft Noise

The proposed project is not located within two miles of a public or private airport or airstrip. The nearest airport is Sacramento McClellan Airport, located approximately 2.3 miles east of the proposed project site. The proposed project would result in **Less than Significant Impacts** to sensitive receptors from public or public use airports or private airstrips.

Chapter 12. References

City of Sacramento, 2035 General Plan. March 3, 2015.

Federal Highway Administration, 2004. FHWA Traffic Noise Model, Version 2.5

Appendix A Traffic Data

This appendix contains tables presenting the traffic data for existing conditions, design-year conditions without the project, and design-year conditions with the project for each alternative.

Table A-1. Existing Average Daily Traffic Volumes

	Segment	Number of Lanes	Total Average Daily Traffic	Auto %	MT %	HT %	Speed (A/MT/HT)
Rio Linda Boulevard	Northbound	1	4,060	98	1	1	45/45/45
Rio Linda Boulevard	Southbound	1	4,060	98	1	1	45/45/45
Grace Avenue	Eastbound	1	320	98	1	1	25/25/25
Grace Avenue	Westbound	1	320	98	1	1	25/25/25

A = Auto, MT = medium truck, HT = heavy truck

Table A-2. Future 2035 No-Project Average Daily Traffic Volumes

	Segment	Number of Lanes	Total Average Daily Traffic	Auto %	MT %	HT %	Speed (A/MT/HT)
Rio Linda Boulevard	Northbound	1	4,850	98	1	1	45/45/45
Rio Linda Boulevard	Southbound	1	4,850	98	1	1	45/45/45
Grace Avenue	Eastbound	1	354	98	1	1	25/25/25
Grace Avenue	Westbound	1	354	98	1	1	25/25/25

A = Auto, MT = medium truck, HT = heavy truck

Table A-3. Future 2035 With Project Average Daily Traffic Volumes

	Segment	Number of Lanes	Total Average Daily Traffic	Auto %	MT %	HT %	Speed (A/MT/HT)
Rio Linda Boulevard	Northbound	1	5,350	98	1	1	45/45/45
Rio Linda Boulevard	Southbound	1	5,350	98	1	1	45/45/45
Grace Avenue	Eastbound	1	484	98	1	1	25/25/25
Grace Avenue	Westbound	1	484	98	1	1	25/25/25
Main Avenue (new extension)	Eastbound	1	320	98	1	1	25/25/25
Main Avenue (new extension)	Westbound	1	320	98	1	1	25/25/25

A = Auto, MT = medium truck, HT = heavy truck

Appendix B Predicted Future Noise Levels

This appendix contains a table that summarizes the traffic noise modeling results for existing and future conditions with and without the project.

Table B-1. Predicted Future Noise

Receiver No.	Location	Predicted Exterior Noise Level for Existing (dBA CNEL)	Predicted Interior Noise Level for Existing (dBA CNEL)	Predicted Exterior Noise Level for No-Build (2035) (dBA CNEL)	Predicted Interior Noise Level for No-Build (2035) (dBA CNEL)	Predicted Exterior Noise Level for Build (2035) (dBA CNEL)	Predicted Interior Noise Level for Build (2035) (dBA CNEL)	Noise Difference Existing to 2035 No-Build (dBA CNEL)	Noise Difference Existing to 2035 Build (dBA CNEL)	Noise Difference 2035 No-Build to 2035 Build (dBA CNEL)
R1	Futures High School	52.2	32.2	52.9	32.9	50.6	30.6	0.7	-1.6	-2.3
R2	4600 Debralee Way	60.5	40.5	**61.3**	41.3	**61.7**	41.7	0.8	1.2	0.4
R3	4610 Debralee Way	61.4	41.4	**62.2**	42.2	**62.6**	42.6	0.8	1.2	0.4
R4	4620 Debralee Way	61.9	41.9	**62.7**	42.7	**63.1**	43.1	0.8	1.2	0.4
R5	4630 Debralee Way	62.2	42.2	**63.0**	43.0	**63.4**	43.4	0.8	1.2	0.4
R6	4640 Debralee Way	62.2	42.2	**63.0**	43.0	**63.4**	43.4	0.8	1.2	0.4
R7	4650 Debralee Way	62.2	42.2	**63.0**	43.0	**63.4**	43.4	0.8	1.2	0.4
R8	4660 Debralee Way	62.3	42.3	**63.1**	43.1	**63.5**	43.5	0.8	1.2	0.4
R9	771 Taylor Morgan Way	58.7	38.7	59.5	39.5	59.9	39.9	0.8	1.2	0.4
R10	4915 Wind Creek Drive	52.5	32.5	53.3	33.3	53.7	33.7	0.8	1.2	0.4
R11	4911 Wind Creek Drive	51.7	31.7	52.5	32.5	52.8	32.8	0.8	1.1	0.3
R12	4907 Wind Creek Drive	50.5	30.5	51.3	31.3	51.4	31.4	0.8	0.9	0.1
R13	4903 Wind Creek Drive	49.5	29.5	50.3	30.3	50.3	30.3	0.8	0.8	0.0
R14	4899 Wind Creek Drive	48.8	28.8	49.6	29.6	49.5	29.5	0.8	0.7	-0.1
R15	4895 Wind Creek Drive	48.1	28.1	48.9	28.9	48.7	28.7	0.8	0.6	-0.2
R16	4891 Wind Creek Drive	47.5	27.5	48.3	28.3	48.0	28.0	0.8	0.5	-0.3
R17	4887 Wind Creek Drive	47.0	27.0	47.7	27.7	47.4	27.4	0.7	0.4	-0.3
R18	4883 Wind Creek Drive	46.5	26.5	47.3	27.3	46.9	26.9	0.8	0.4	-0.4
R19	4879 Wind Creek Drive	46.1	26.1	46.8	26.8	46.3	26.3	0.7	0.2	-0.5
R20	933 Main Avenue	49.4	29.4	50.2	30.2	48.8	28.8	0.8	-0.6	-1.4
R21	935 Main Avenue	46.7	26.7	47.2	27.2	47.5	27.5	0.5	0.8	0.3
R22	1005 Main Avenue	35.6	15.6	36.2	16.2	38.1	18.1	0.6	2.5	1.9
R23	1009 Main Avenue	36.6	16.6	37.2	17.2	38.7	18.7	0.6	2.1	1.5
R24	1013 Main Avenue	44.2	24.2	44.3	24.3	44.5	24.5	0.1	0.3	0.2
R25	1015 Main Avenue	43.7	23.7	44.3	24.3	40.7	20.7	0.6	-3.0	-3.6
R26	4805 Marysville Boulevard	51.3	31.3	51.4	31.4	50.9	30.9	0.1	-0.4	-0.5
R27	Lot 81	-	-	-	-	50.7	30.7	-	-	50.7
R28	Lot 133	-	-	-	-	47.0	27.0	-	-	47.0
R29	Lot 134	-	-	-	-	40.4	20.4	-	-	40.4
R30	Lot 135	-	-	-	-	42.0	22.0	-	-	42.0
R31	Lot 136	-	-	-	-	44.8	24.8	-	-	44.8
R32	Lot 137	-	-	-	-	46.8	26.8	-	-	46.8
R33	Lot 138	-	-	-	-	50.0	30.0	-	-	50.0
R34	Lot 139	-	-	-	-	50.7	30.7	-	-	50.7
R35	Lot 140	-	-	-	-	51.4	31.4	-	-	51.4
R36	Lot 141	-	-	-	-	51.9	31.9	-	-	51.9
R37	Lot 142	-	-	-	-	52.8	32.8	-	-	52.8

Table B-1. Predicted Future Noise

Receiver No.	Location	Predicted Exterior Noise Level for Existing (dBA CNEL)	Predicted Interior Noise Level for Existing (dBA CNEL)	Predicted Exterior Noise Level for No-Build (2035) (dBA CNEL)	Predicted Interior Noise Level for No-Build (2035) (dBA CNEL)	Predicted Exterior Noise Level for Build (2035) (dBA CNEL)	Predicted Interior Noise Level for Build (2035) (dBA CNEL)	Noise Difference Existing to 2035 No-Build (dBA CNEL)	Noise Difference Existing to 2035 Build (dBA CNEL)	Noise Difference 2035 No-Build to 2035 Build (dBA CNEL)
R38	Lot 143	-	-	-	-	54.3	34.3	-	-	54.3
R39	Lot 144	-	-	-	-	55.2	35.2	-	-	55.2
R40	Lot 145	-	-	-	-	56.5	36.5	-	-	56.5
R41	Lot 146	-	-	-	-	57.7	37.7	-	-	57.7
R42	Lot 147	-	-	-	-	58.9	38.9	-	-	58.9
R43	Lot 68	-	-	-	-	42.7	22.7	-	-	42.7
R44	Lot 69	-	-	-	-	40.8	20.8	-	-	40.8
R45	Lot 70	-	-	-	-	40.9	20.9	-	-	40.9
R46	Lot 71	-	-	-	-	41.3	21.3	-	-	41.3
R47	Lot 72	-	-	-	-	42.3	22.3	-	-	42.3
R48	Lot 73	-	-	-	-	41.7	21.7	-	-	41.7
R49	Lot 74	-	-	-	-	42.0	22.0	-	-	42.0
R50	Lot 75	-	-	-	-	42.2	22.2	-	-	42.2
R51	Lot 76	-	-	-	-	42.7	22.7	-	-	42.7
R52	Lot 77	-	-	-	-	41.5	21.5	-	-	41.5
R53	Lot 78	-	-	-	-	43.0	23.0	-	-	43.0
R54	Lot 79	-	-	-	-	42.8	22.8	-	-	42.8
R55	Lot 80	-	-	-	-	47.8	27.8	-	-	47.8
R56	Lot 56	-	-	-	-	56.8	36.8	-	-	56.8
R57	Lot 51	-	-	-	-	43.6	23.6	-	-	43.6
R58	Lot 50	-	-	-	-	43.8	23.8	-	-	43.8
R59	Lot 49	-	-	-	-	43.5	23.5	-	-	43.5
R60	Lot 1	-	-	-	-	50.0	30.0	-	-	50.0
R61	Lot 2	-	-	-	-	47.9	27.9	-	-	47.9
R62	Lot 3	-	-	-	-	46.8	26.8	-	-	46.8
R63	Lot 4	-	-	-	-	46.2	26.2	-	-	46.2
R64	Lot 5	-	-	-	-	45.4	25.4	-	-	45.4
R65	Lot 6	-	-	-	-	44.8	24.8	-	-	44.8
R66	Lot 7	-	-	-	-	44.2	24.2	-	-	44.2
R67	Lot 8	-	-	-	-	43.7	23.7	-	-	43.7
R68	Lot 9	-	-	-	-	47.6	27.6	-	-	47.6

Bold indicates noise levels exceeding City of Sacramento noise threshold
Source: FHWA Traffic Noise Model 2.5

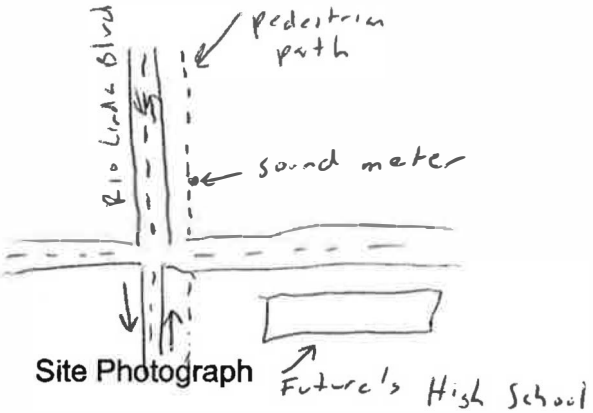
Appendix C Field Data

Supplemental data such as field notes, photographs, and other data from the field investigation should be provided here.

Noise Field Data Sheet

Project Name and Number	2448 / Dry Creek Estates
Receptor Site	Pedestrian Path near NE corner of Rio Linda Blvd
Latitude/Longitude/Description	38° 39' 7.34" N, -121° 26' 50.48" W
Start Date & Time	11/5/21 4:42 pm
End Date & Time	11/5/21 4:47 pm
Relative Humidity (%),Temperature (degrees F), Wind Speed/Direction	87 % Humidity 55° F 8 mph NNW
Vehicle Speeds	
Notes	63.7 dBA Data # 8

Site Sketch (including landmarks—building corners, trees, street signs, curbs, fences)



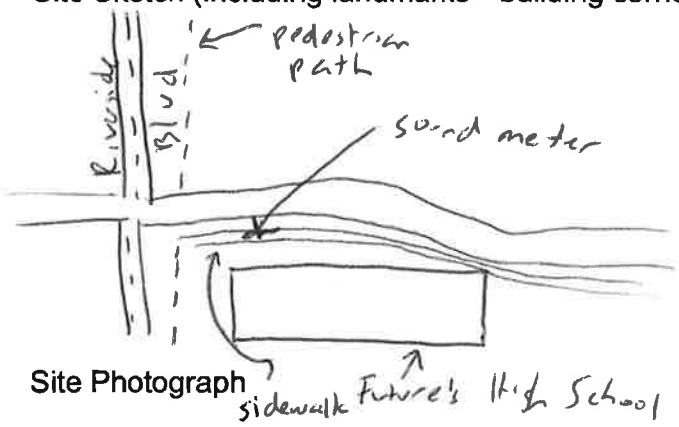
Site Photograph

Equipment	Meter Type: Larson Davis 824
	Calibrator: Larson Davis Cal 200
Company meter #	
Staff	Roberto R., Ken C.

Noise Field Data Sheet

Project Name and Number	2848 / Dry Creek Estates
Receptor Site	Parking lot of Future's High School
Latitude/Longitude/Description	38°39' 5.03" N , -121°26' 47.86
Start Date & Time	11/5/21 5:01 pm
End Date & Time	11/5/21 5:16 pm
Relative Humidity (%),Temperature (degrees F), Wind Speed/Direction	92% Humidity 53°F 7 mph NNW
Vehicle Speeds	
Notes	55.8 dBA Data #9

Site Sketch (including landmarks—building corners, trees, street signs, curbs, fences)



Site Photograph

Equipment	Meter Type: Larson Davis 824
	Calibrator: Larson Davis Cal 200
Company meter #	
Staff	Roberto R., Ken C.

APPENDIX D: Vehicle Miles Traveled Memorandum

Kimley»Horn

Memorandum

To: Matthew Ilagan
City of Sacramento

From: Chris Gregerson, P.E., T.E., PTOE, PTP

Re: Dry Creek Estates (P20-040)
Vehicle Miles Traveled (VMT) Analysis

Date: December 16, 2021

In accordance with Task 2 of our Scope of Services, we are writing to summarize the Vehicle Miles Traveled (VMT) analysis completed for the proposed Dry Creek Estates (the "project" or "proposed project") in the City of Sacramento, CA. This memorandum summarizes the VMT analysis and resultant findings for the proposed Dry Creek Estates development project.

Project Description

Kimley-Horn understands that the project applicant is proposing to develop a currently vacant parcel into a 147-unit residential development located at the northeast corner of the Rio Linda Boulevard intersection with Grace Avenue. The project location is shown in **Exhibit 1.** The project is expected to access the surrounding roadway network via Main Avenue to the north and Grace Avenue to the south Boulevard as depicted in **Exhibit 2**. It is understood that the project will not have direct access to Rio Linda Boulevard.

Purpose of Analysis

Senate Bill 743 (2013) changed the focus of transportation impact analyses in CEQA from measuring impacts to drivers, to measuring the impact of driving. The change was made by replacing Level of Service (LOS) with VMT. This shift in transportation impact focus was intended to better align transportation impact analyses and mitigation outcomes with the State's goals to reduce greenhouse gas (GHG) emissions, encourage infill development, and improve public health through more active transportation. Level of service or other delay metrics may still be used to evaluate the impact of projects on drivers as part of land use entitlement review and impact fee programs.

In January 2019, the Natural Resources Agency finalized updates to the CEQA Guidelines including the incorporation of SB 743 modifications. The Guidelines' changes were approved by the Office of Administrative Law and are now in effect. The provisions apply statewide as of July 1, 2020.

To aid lead agencies with SB 743 implementation, the Governor's Office of Planning and Research (OPR) produced the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) that provides guidance regarding the variety of implementation questions they face with respect to shifting to a VMT metric. Key guidance from this document includes:

- VMT is the most appropriate metric to evaluate a project's transportation impact.
- OPR recommends tour- and trip-based travel models to estimate VMT, but ultimately defers to local agencies to determine the appropriate tools.
- OPR recommends measuring VMT for residential and office projects on a "per rate" basis.

- OPR notes that residential and office projects that are located in areas with low VMT, and that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT.
- OPR recommends that maps created with VMT data, such as a travel demand model, can illustrate areas that are currently below threshold VMT. Because new development in such locations would likely result in a similar level of VMT, such maps can be used to screen out residential and office projects from needing to prepare a detailed VMT analysis.
- Lead agencies have the discretion to set or apply their own significance thresholds.

The thresholds to consider for projects located within the City of Sacramento boundaries consider the VMT performance of residential and non-residential components of a project separately, using the efficiency metrics of VMT per capita and VMT per employee, respectively. For retail components of a project, or other customer-focused uses, the county-wide VMT effect is analyzed. The VMT thresholds of significance used for this analysis are summarized below for each of these components:

- Residential – 15% below baseline countywide VMT per Capita
- Employment-based land uses (e.g., office) – 15% below baseline countywide VMT per Employee
- Customer-based non-residential land uses (e.g., retail) – No net increase in VMT

Methodology and Assumptions

Based on the land use information provided, for the purposes of VMT analysis and the determination of transportation related significant impacts, the following land uses were analyzed:

- Residential

Consistent with OPR guidelines, a project is considered to result in a significant impact if the VMT per Capita for the proposed project exceeds 85-percent of the regional avverage for the respective metric as noted in the previous section.

Analysis

Consistent with OPR guidelines and at the direction of City of Sacramento staff, the Residential VMT screening map developed by the Sacramento Area Council of Governments (SACOG)[1] was used to determine whether the proposed project can be screened from a quantitative VMT analysis. SACOG's screening map is based on data contained within the latest version of its travel demand model, SACSIM19. SACSIM19 has a base year scenario that represents 2016 conditions and was used to set regional efficiency thresholds (VMT/capita or VMT/employee) for both residential and non-residential projects. The SACOG region is segmented into hexagons with an approximately half-mile diameter that are used to determine the VMT efficiency (average VMT/capita or VMT/employee) for each hexagon.

For residential projects, the regional threshold is defined as total household VMT per capita achieving a 15-percent reduction compared to the regional average. Residential VMT per capita for each hexagon is calculated by tallying the total VMT produced for all households located within the hexagon, including VMT for trips that travel outside of the region, and dividing by the total population in the hexagon.

As shown in **Exhibit 3**, the hexagon that covers the site of the proposed project is hexagon DJ-129, which has an average VMT per capita of 17.49. The VMT per capita regional average calculated by SACOG is 20.82, which results in a threshold of 17.7 VMT per capita (85-percent of the regional average). Thus, the

[1] *Residential VMT*. Sacramento Area Council of Governments. Updated May 26, 2021. Accessed December 9, 2021. https://arcg.is/0aXXfG

proposed project is assumed to fall below the regional threshold because hexagon DJ-129 also falls below the regional threshold (17.49 versus 17.7). Therefore, the proposed project can be assumed to result in a less than significant impact and there is no need to completed a quantitative VMT analysis to determine the proposed project's VMT per capita.

Conclusions

Based on the results of this analysis, the following conclusions are made:

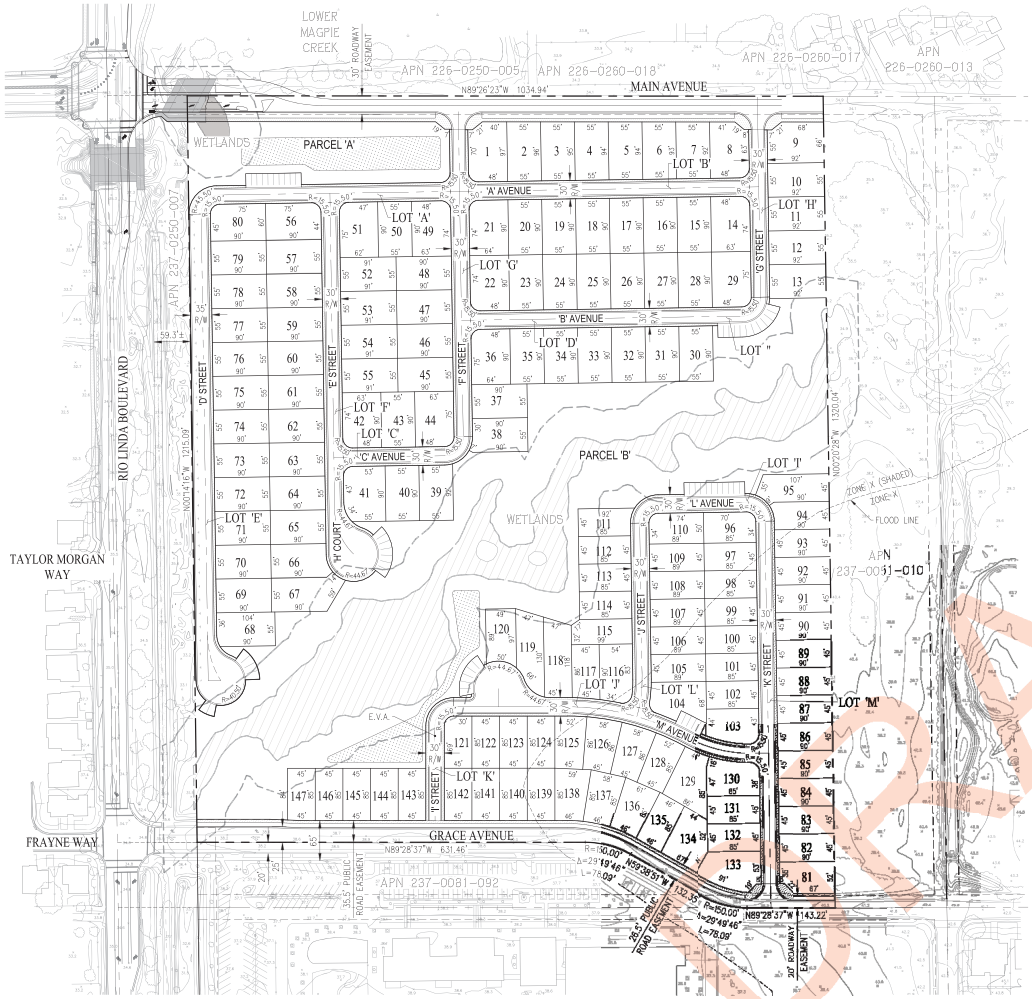
- The proposed project is located within a hexagon (hexagon DJ-129) that has an average VMT per capita that falls below the regional threshold (17.49 versus 17.7). **Therefore, the proposed project is determined to not have a significant transportation impact for a residential development.**

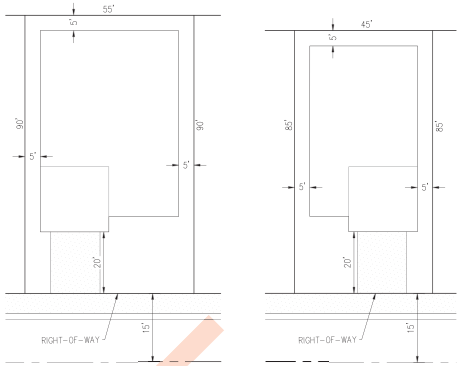
Attachments:

Exhibit 1 – Project Vicinity Map
Exhibit 2 – Project Site Plan
Exhibit 3 – SACOG Residential VMT Hex Map

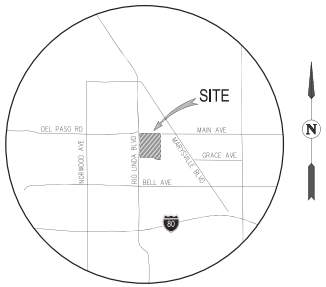
Kimley»Horn

Exhibit 1
Project Vicinity Map





TYPICAL SETBACKS
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

PARCELS

PARCEL	AREA (AC)
A	1.00
B	9.57
R/W	6.11

GENERAL NOTES:

1.	SUBDIVISION NAME:	DRY CREEK ESTATES
2.	OWNER/DEVELOPER:	THE TRUE LIFE COMPANIES 110 BLUE RAVINE ROAD, SUITE 209 FOLSOM, CA 95630
3.	ENGINEER:	CARLSON, BARBEE & GIBSON, INC. 2633 CAMINO RAMON, SUITE 350 SAN RAMON, CA 94583 (925) 866-0322
4.	TOPOGRAPHIC SOURCE:	GEOMAPS 3362 MATHER FIELD ROAD RANCHO CORDOVA, CA 95670
5.	CONTOUR INTERVAL:	1 FOOT
6.	BASIS OF BEARING:	THE BASIS OF BEARINGS FOR THIS MAP IS THE NORTH AMERICAN DATUM OF 1983, EPOCH 1997.30. AS SHOWN ON "RECORD OF SURVEY GPS STATIC SURVEY" (63 RS 29) AND DETERMINED BY FOUND MONUMENTS SHOWN HEREON.
7.	FLOOD ZONE DESIGNATION:	ZONE X (SHADED) AND ZONE X, PER FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FIRM 06067C0064J, EFFECTIVE DATE JUNE 16, 2015.
8.	ASSESSOR'S PARCEL NO.:	237-0051-012 237-0051-013
9.	SITE AREA:	15.59 ACRES± (APN 237-0051-012) 13.97 ACRES± (APN 237-0051-013)
10.	NET AREA:	21.60 ACRES±
11.	GENERAL PLAN DESIGNATION:	SUBURBAN NEIGHBORHOOD LOW DENSITY
12.	EXISTING LAND USE:	VACANT
13.	PROPOSED LAND USE:	SINGLE FAMILY RESIDENTIAL
14.	EXISTING ZONING:	A
15.	PROPOSED ZONING:	R-1A P.U.D.
16.	NUMBER OF LOTS:	147 LOTS
17.	NUMBER OF PARCELS:	2 PARCELS
18.	NUMBER OF LETTERED LOTS:	13 LOTS
19.	MINIMUM LOT SIZE:	45'x85' (67 LOTS) & 55'x90' (80 LOTS)
20.	UTILITIES:	
	ZONING:	CITY OF SACRAMENTO
	SEWER:	SACRAMENTO AREA SEWER DISTRICT
	FIRE	CITY OF SACRAMENTO
	DRAINAGE:	CITY OF SACRAMENTO
	WATER:	CITY OF SACRAMENTO
	ELECTRIC:	S.M.U.D.
	TELEPHONE:	AT&T
	SCHOOL DISTRICT:	TWIN RIVERS UNIFIED SCHOOL DISTRICT
21.	PROJECT MAY BE DEVELOPED IN PHASES.	
22.	PROPOSED GRADING AS SHOWN IS PRELIMINARY, FINISH GRADING IS SUBJECT TO FINAL DESIGN.	
23.	MAXIMUM CUT AND FILL SLOPE IS 3:1.	
24.	UTILITIES ARE TO BE USED AS A GUIDE. FINAL DESIGN IS SUBJECT TO MODIFICATIONS.	

LOT AREAS

LOT	AREA (SF)	LOT	AREA (SF)	LOT	AREA (SF)
1	5,938	50	4,950	99	3,825
2	5,311	51	5,573	100	3,825
4	5,216	53	5,005	102	3,825
5	5,168	54	5,005	103	4,542
6	5,121	56	5,005	104	5,099
7	5,073	56	5,348	105	4,005
8	5,586	57	4,950	106	4,005
9	5,997	58	4,950	107	4,005
10	5,060	59	4,950	108	4,005
11	5,060	60	4,950	109	4,005
12	5,060	61	4,950	110	4,398
13	5,060	62	4,950	111	3,881
14	5,663	63	4,950	112	3,825
15	4,950	64	4,950	113	3,825
16	4,950	65	4,950	114	3,825
17	4,950	66	5,050	115	3,993
18	4,950	67	5,932	116	4,997
19	4,950	68	5,201	117	3,941
20	4,950	69	4,950	118	5,594
21	5,663	70	4,950	119	5,385
22	5,663	71	4,950	120	4,304
23	4,950	72	4,950	121	3,769
24	4,950	73	4,950	122	3,821
25	4,950	74	4,950	123	3,821
26	4,950	75	4,950	124	3,821
27	4,950	76	4,950	125	4,178
28	4,950	77	4,950	126	4,447
29	5,663	78	4,950	127	4,448
30	4,950	79	4,950	128	4,194
31	4,950	80	5,348	129	5,507
32	4,950	81	4,387	130	4,741
33	4,950	82	4,050	131	3,825
34	4,950	83	4,050	132	3,825
35	4,950	84	4,050	133	5,505
36	5,663	85	4,050	134	5,255
37	4,455	86	4,050	135	3,884
38	4,506	87	4,050	136	4,470
39	4,957	88	4,050	137	4,361
40	4,950	89	4,050	138	4,425
41	5,947	90	4,050	139	3,829
42	5,618	91	4,050	140	3,828
43	4,950	92	4,050	141	3,829
44	5,618	93	4,050	142	3,829
45	4,950	94	4,133	143	3,825
46	4,950	95	5,038	144	3,825
47	4,950	96	4,198	145	3,825
48	4,950	97	3,825	146	3,825
49	5,663	98	3,825	147	3,818

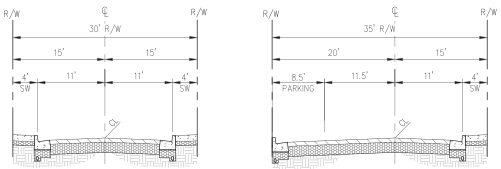
LETTERED LOTS

LOT	AREA	RIGHT-OF-WAY
'A' ('A' AVENUE)	0.34 AC.	30'
'B' ('A' AVENUE)	0.32 AC.	30'
'C' ('C' AVENUE)	0.15 AC.	30'
'D' ('B' AVENUE)	0.39 AC.	30'
'E' ('D' STREET)	0.75 AC.	35'
'F' ('E' STREET)	0.56 AC.	30'
'G' ('F' STREET)	0.34 AC.	30'
'H' ('G' STREET)	0.19 AC.	30'
'I' ('L' AVENUE)	0.21 AC.	30'
'J' ('M' AVENUE)	0.51 AC.	30'
'K' ('I' STREET)	0.14 AC.	30' (E.V.A.)
'L' ('J' STREET)	0.21 AC.	30'
'M' ('K' STREET)	0.41 AC.	30'

INDEX OF SHEETS:

LEGEND

SUBDIVISION BOUNDARY
LOT LINE
RIGHT OF WAY
EXISTING EASEMENTS
PROPOSED CENTERLINE
51 LOT NUMBER
55' LOT DIMENSION
DETENTION BASIN



30' RIGHT OF WAY (PRIVATE)
NOT TO SCALE

35' RIGHT OF WAY (PRIVATE)
NOT TO SCALE

ENGINEER'S STATEMENT

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THE LAND DEVELOPMENT KNOWN AS "DRY CREEK ESTATES" HAS BEEN DESIGNED IN ACCORDANCE WITH THE SPECIFICATIONS AND GUIDELINES ESTABLISHED BY THE CITY OF SACRAMENTO.

REGISTERED PROFESSIONAL ENGINEER TERENCE R. REEVES 75174 CIVIL STATE OF CALIFORNIA

TERRENCE R. REEVES
CARLSON, BARBEE & GIBSON, INC.

DATE

TENTATIVE MAP
DRY CREEK ESTATES
OVERALL SITE PLAN

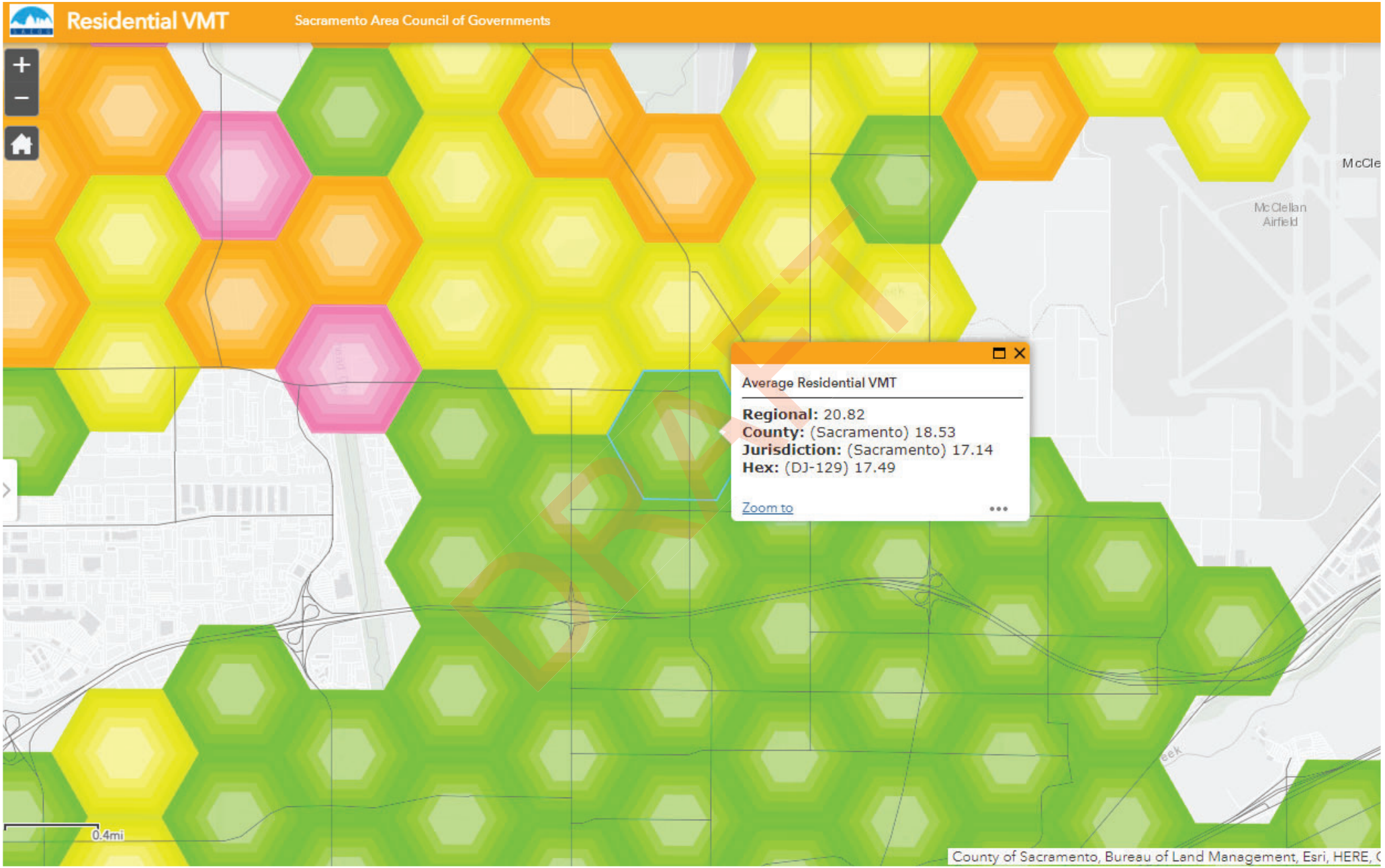
CITY OF SACRAMENTO CALIFORNIA
SCALE: 1" = 100' DATE: OCTOBER 1, 2021

0 100 200 300

cbg CIVIL ENGINEERS • SURVEYORS • PLANNERS
SAN RAMON • (925) 866-0322
ROSEVILLE • (916) 788-4456
WWW.CBANDG.COM

SHEET NO.
TM-1
OF 4 SHEETS

P:\3185-000\ACAD\TM\TM01.DWG


Residential VMT
Sacramento Area Council of Governments
McClellan Airfield
Average Residential VMT
Regional: 20.82
County: (Sacramento) 18.53
Jurisdiction: (Sacramento) 17.14
Hex: (DJ-129) 17.49
Zoom to
0.4mi
County of Sacramento, Bureau of Land Management, Esri, HERE,