Todd Smith, Planning Director
Planning and Environmental Review

Troy Givans, Director
Department of Community Development

County of Sacramento

Mitigated Negative Declaration

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

1. **Control Number:** PLNP2022-00116

2. **Title and Short Description of Project:** Cattanach Residence

   The project consists of the following entitlement request:

   A Development Plan Review for a single-family residence on a 0.92-acre property in the Garden Highway Special Planning Area.

   The project would construct a 2079 square foot, two story, single family home with a 2075 square-foot attached garage. The project will also include a compacted aggregate base driveway leading from Garden Highway to the residence.

3. **Assessor's Parcel Number:** 274-0690-002-0000

4. **Location of Project:** The project site is located on Garden Highway along the bank of the Sacramento River in the northwest county region.

5. **Project Applicant:** RWFC Inc.

6. Said project will not have a significant effect on the environment for the following reasons:
   a. It will not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.
   b. It will not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.
   c. It will not have impacts, which are individually limited, but cumulatively considerable.
   d. It will not have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly.

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

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

Julie Newton

Julie Newton
Environmental Coordinator
County of Sacramento, State of California

COUNTY OF SACRAMENTO
PLANNING AND ENVIRONMENTAL REVIEW
INITIAL STUDY

PROJECT INFORMATION

CONTROL NUMBER: PLNP2022-00116

NAME: Cattanach Residence

LOCATION: The project site is located on Garden Highway along the bank of the Sacramento River in the northwest county region.

ASSESSOR'S PARCEL NUMBER: 274-0690-002-0000

OWNER: David Cattanach
2489 Garden Highway
Sacramento, CA 95833

APPLICANT: RWFC Inc.
700 Alhambra Boulevard
Sacramento, CA 95816
Attn.: Tyler Shields

PROJECT DESCRIPTION

The project consists of the following entitlement request:

1. A **Development Plan Review** for a single-family residence on a 0.92-acre property in the Garden Highway Special Planning Area.

The project would construct a 2079 square foot, two story, single family home with a 2075 square-foot attached garage. The project will also include a compacted aggregate base driveway leading from Garden Highway to the residence.

ENVIRONMENTAL SETTING

The project is located on the levee side of the Garden Highway, between Garden Highway and the Sacramento River. The surrounding land use is residential along the bank of the Sacramento River with other homes being directly next to the project parcel. To the north and west the land is largely agricultural with parcels of varying sizes dedicated to different cops. To the south and east of the property the area is fully urbanized with the City of West Sacramento just south across the river and downtown Sacramento 4 miles southeast. The Sacramento River is popular for recreation such as boating, water skiing,

and fishing as well as wildlife viewing. The topography of the project site is generally flat other than the levee along the banks of the Sacramento River. The vegetation on the project site is predominantly valley oaks with several other deciduous tree species.

Plate IS-1: Site Plan

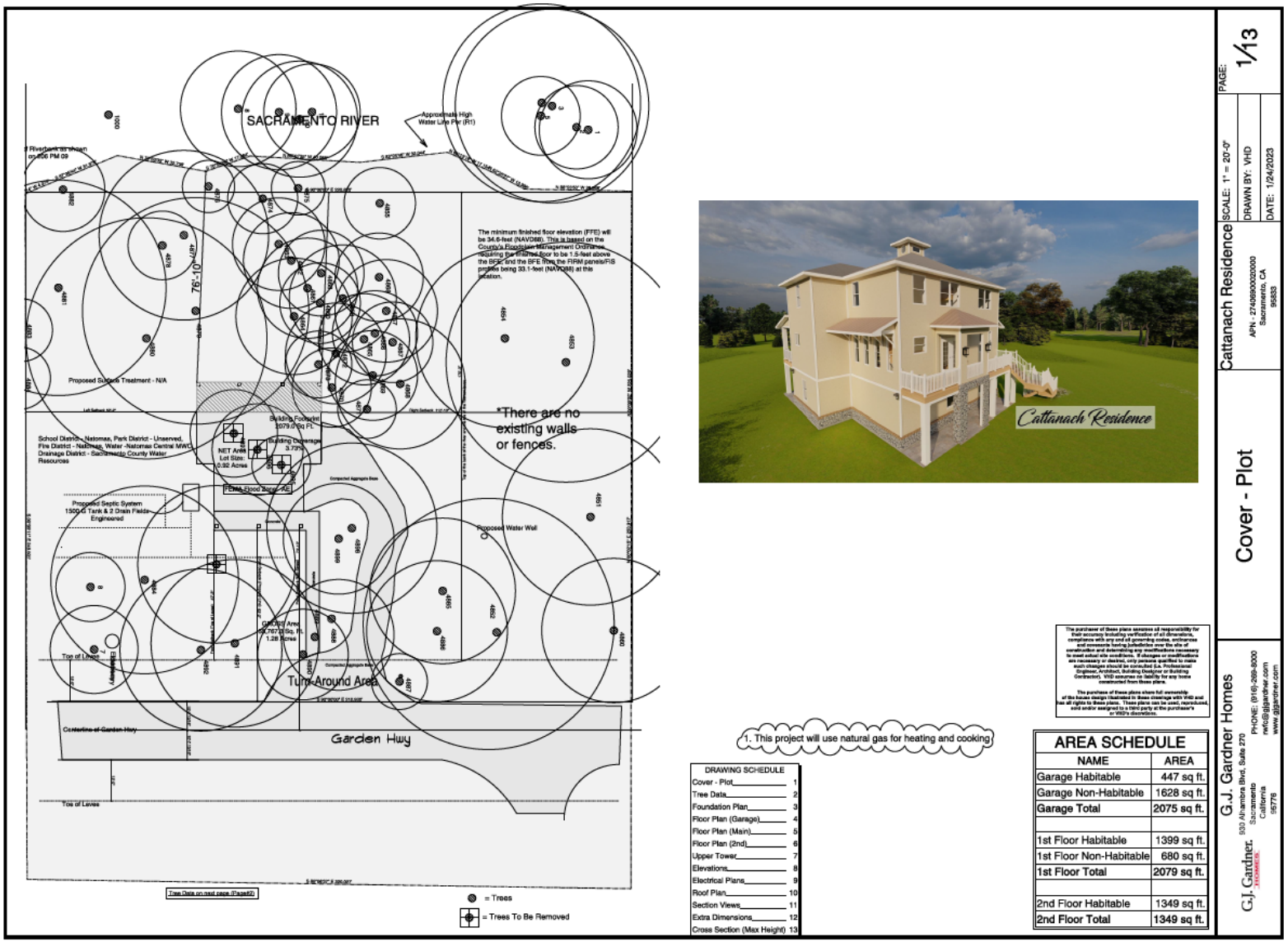


Plate IS-2: Tree Inventory Map

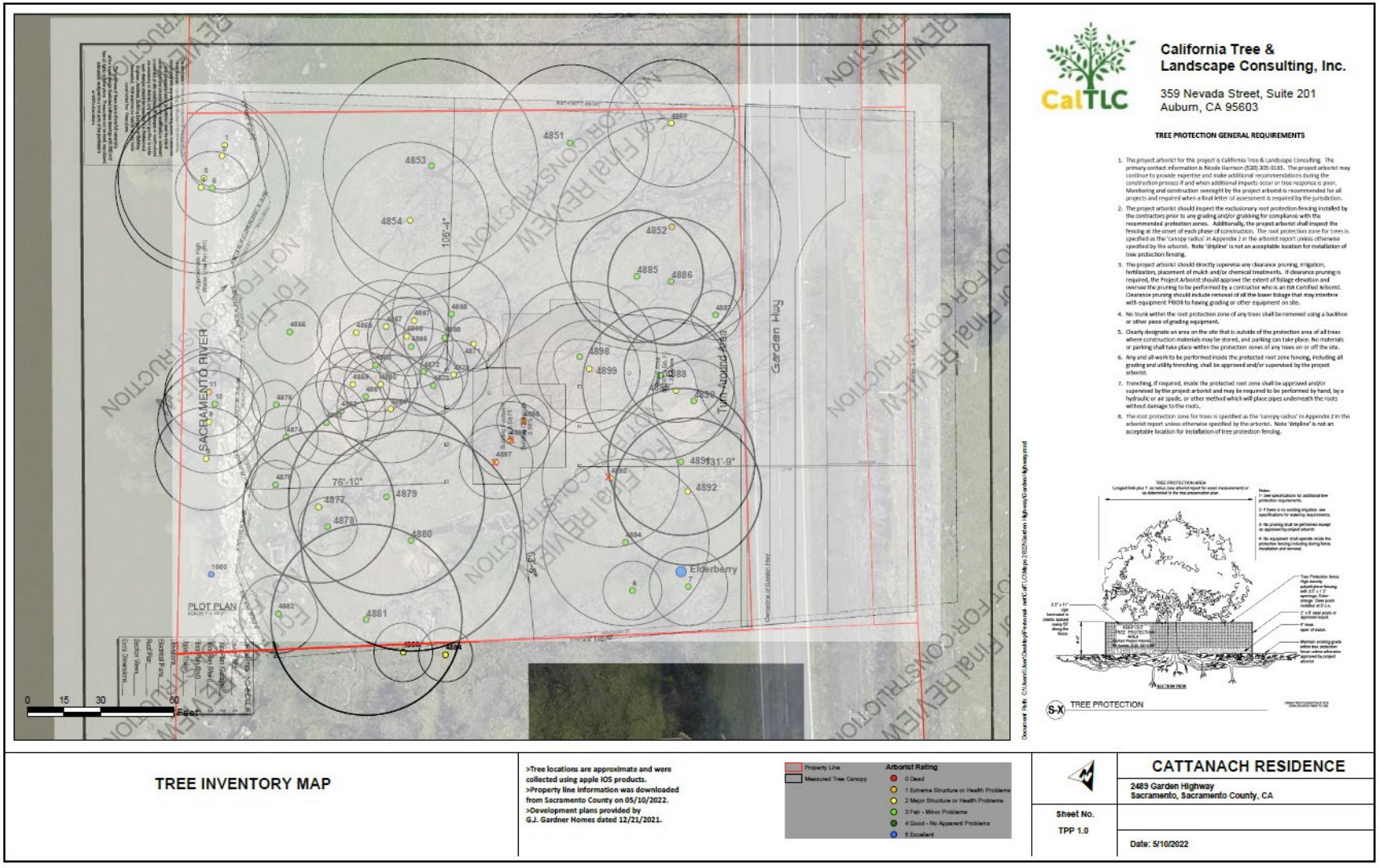
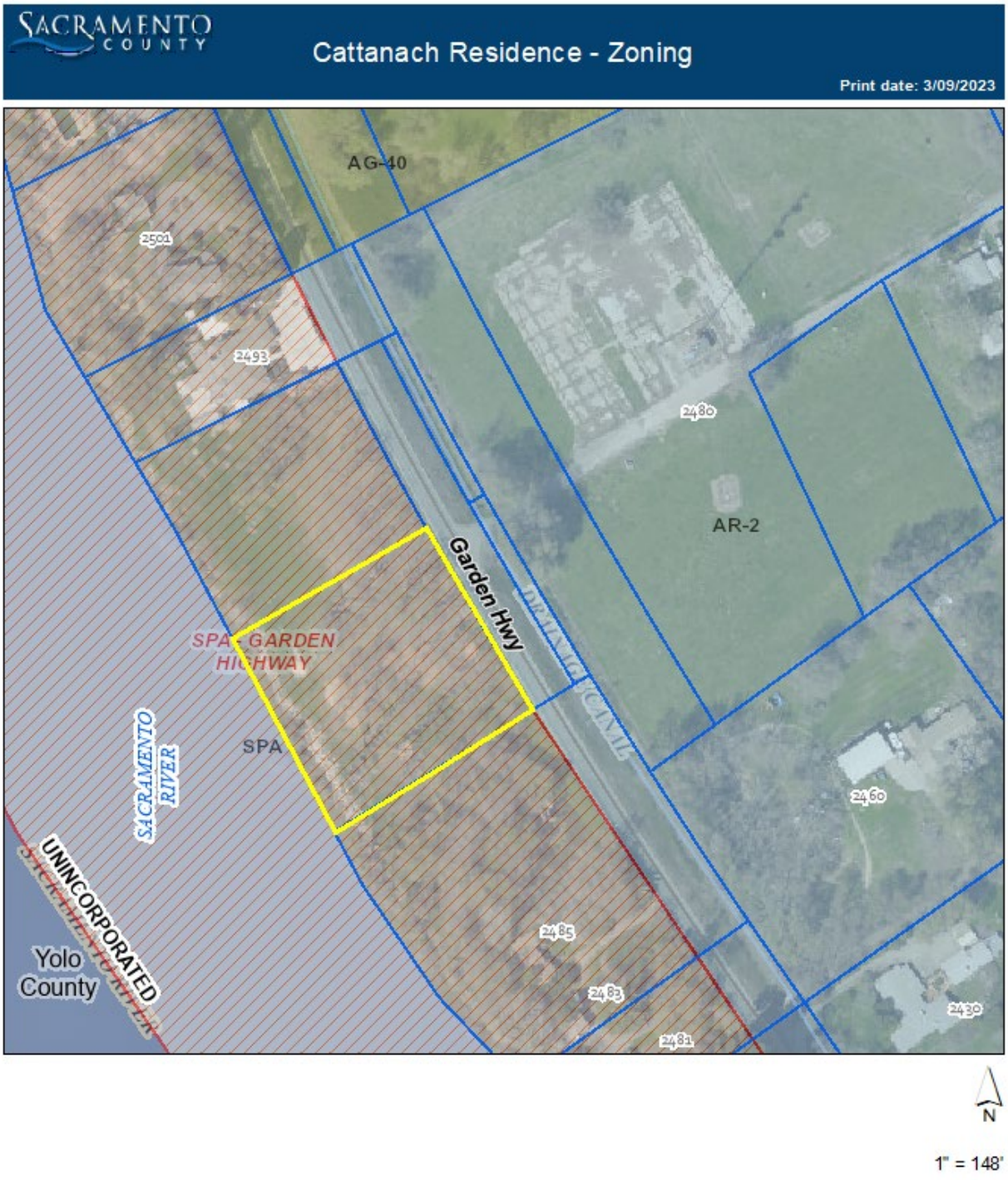


Plate IS-2: Aerial View of Project Site

Plate IS-3: Zoning



ENVIRONMENTAL EFFECTS

Appendix G of the California Environmental Quality Act (CEQA) provides guidance for assessing the significance of potential environmental impacts. Based on this guidance, Sacramento County has developed an Initial Study Checklist (located at the end of this report). The Checklist identifies a range of potential significant effects by topical area. The topical discussions that follow are provided only when additional analysis beyond the Checklist is warranted.

BACKGROUND

The application is subject to planning entitlements from Sacramento County for compliance with the Garden Highway Special Planning Area (SPA). The applicant will be required to coordinate with the United States Army Corps of Engineers (USACE) and the Central Valley Flood Protection Board (CVFPB) to conduct geotechnical testing on the parcel. The Sacramento River East Levee is located on the subject parcel is USACE Civil Work. Permission to implement the project on a Civil Work must be obtained from the USACE pursuant to compliance with Section 14 of the Rivers and Harbors Act of 1899, codified at 33 United States Code (USC) 408 (Section 408). Construction on the parcel is also subject to permitting from the CVFPB.

LAND USE

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

- Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

The project site is zoned for single-family residential which is currently undeveloped. The project would build a single-family residence that would comply with all setbacks and restrictions. Construction and operation of the proposed project would not conflict with any Garden Highway SPA policies. Individual environmental impacts not specifically addressed in the Garden Highway SPA are addressed in this document under the appropriate topical heading. All potential impacts would be reduced to less than significant with the implementation of project-specific mitigation. With approval of the use permit, the proposed project would have a ***less than significant*** impact with regards to potential conflict with the Garden Highway SPA.

AESTHETICS

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

- Substantially alter existing viewsheds such as scenic highways, corridors or vistas.

The Garden Highway is identified as a scenic corridor in the Circulation Element of the General Plan. Garden Highway is not an official state scenic highway established pursuant to Article 2.5 (commencing with Section 260) of Chapter 2 of Division 1 of the Streets and Highways Code. To preserve and enhance the scenic qualities of the scenic corridor, which runs along the crown of the Sacramento River levee from the Sacramento City limits north to the Placer County line, the Garden Highway SPA includes development standards that must be met for new construction. Compliance with the development standards, which permit residential development on the river side of the levee, include specifications for setbacks and height limits, and encourage vegetative screening of homes along the corridor will preserve the quiet residential atmosphere of the corridor. Development of the site as a single-family residence would be consistent with the planned development and zoning of the site. The construction of the single family home would be similar to the single-family homes to the north and south of the project site. Therefore, impacts to aesthetics will be ***less than significant***.

AIRPORTS

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

- Result in a safety hazard for people residing or working in the vicinity of an airport/airstrip.

The project occurs outside of any identified public or private airport/airstrip safety zones. However, the project is within Sacramento International Airport's Airport Planning Policy Area. The Sacramento County Board of Supervisors adopted resolution 2006-1379 on April 19, 2006, and associated land use conditions that were subsequently incorporated as Policies NO-3 and NO-4 in the Sacramento County 2030 General Plan Land Use Element, adopted in 2011. Those conditions read:

> NO-3. New residential development within the 60 CNEL noise contours adopted by the County for planning purposes at any airport or Helipad within Sacramento County shall be prohibited. This policy is not applicable to Executive Airport.
>
> NO-4. New residential development within adopted Airport Policy Area boundaries, but outside the 60 CNEL, shall be subject to the following conditions:
>
> A. Provide minimum noise insulation to 45 dB CNEL within new residential dwellings, including detached single family dwellings, with windows closed in any habitable room. Notification in the Public Report prepared by the California Department of Real Estate disclosing the fact to

prospective buyers that the parcel is located within an Airport Policy Area.

B. An Avigation Easement prepared by the Sacramento County Counsel's Office granted to the County of Sacramento, recorded with the Sacramento County Recorder, and filed with Department of Airports. Such Avigation Easement shall acknowledge the property location within an Airport Planning Policy Area and shall grant the right of flight and unobstructed passage of all aircraft into and out of the subject Airport.

The proposed Project's existing General Plan land use is Recreation (APN: 274-0690-002-0000). The proposed Project lies within the Sacramento International Airport's, Airport Planning Policy Area and outside of Sacramento's 60 CNEL. While the project is not subject to policy NO-3, the proposed project would result in the development on the parcels within the adopted Airport Policy Area. Policy NO-4 applies and the inclusion of an Avigation Easement would be included as part of final project approval.

With the inclusion of the disclosure requirement and the implementation of the Avigation Easement the impacts would be ***less than significant.***

AIR QUALITY

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

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

CRITERIA POLLUTANT HEALTH RISKS

All criteria air pollutants can have human health effects at certain concentrations. Air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment designations under the national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS). The NAAQS and CAAQS are informed by a wide range of scientific evidence, which demonstrates that there are known safe concentrations of criteria air pollutants. Because the NAAQS and CAAQS are based on maximum pollutant levels in outdoor air that would not harm the public's health, and air district thresholds pertain to attainment of these standards, the thresholds established by air districts are also protective of human health. Sacramento County is currently in nonattainment of the NAAQS and CAAQS for ozone. Projects that emit criteria air pollutants in exceedance of SMAQMD's thresholds would contribute to the regional degradation of air quality that could result in adverse human health impacts.

Acute health effects of ozone exposure include increased respiratory and pulmonary resistance, cough, pain, shortness of breath, and lung inflammation. Chronic health

effects include permeability of respiratory epithelia and the possibility of permanent lung impairment (EPA 2016).

HEALTH EFFECTS SCREENING

In order to estimate the potential health risks that could result from the operational emissions of ROG, NO_X, and $PM_{2.5}$, Planning and Environmental Review (PER) staff implemented the procedures within SMAQMD's I*nstructions for Sac Metro Air District Minor Project and Strategic Area Project Health Effects Screening Tools* (SMAQMD's Instructions). To date, SMAQMD has published three options for analyzing projects: small projects may use the Minor Project Health Screening Tool, while larger projects may use the Strategic Area Project Health Screening Tool, and practitioners have the option to conduct project-specific modeling.

Both the Minor Project Health Screening Tool and Strategic Area Project Health Screening Tool are based on the maximum thresholds of significance adopted within the five air district regions contemplated within SMAQMD's *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District* (SMAQMD's Friant Guidance; October 2020). The air district thresholds considered in SMAQMD's Friant Guidance included thresholds from SMAQMD as well as the El Dorado County Air Quality Management District, the Feather River Air Quality Management District, the Placer County Air Pollution Control District, and the Yolo Solano Air Quality Management District. The highest allowable emission rates of NO_X, ROG, PM_{10}, and $PM_{2.5}$ from the five air districts is 82 pounds per day (lbs/day) for all four pollutants. Thus, the Minor Project Health Screening Tool is intended for use by projects that would result in emissions at or below 82 lbs/day, while the Strategic Area Project Health Screening Tool is intended for use by projects that would result in emissions between two and eight times greater than 82 lbs/day. The Strategic Area Project Screening Model was prepared by SMAQMD for five locations throughout the Sacramento region for two scenarios: two times and eight times the threshold of significance level (2xTOS and 8xTOS). The corresponding emissions levels included in the model for 2xTOS were 164 lb/day for ROG and NO_X, and 656 lb/day under the 8xTOS for ROG and NO_X (SMAQMD 2020).

As noted in SMAQMD's Friant Guidance, "each model generates conservative estimates of health effects, for two reasons: The tools' outputs are based on the simulation of a full year of exposure at the maximum daily average of the increases in air pollution concentration… [and] [t]he health effects are calculated for emissions levels that are very high" (SMAQMD 2020).

The model derives the estimated health risk associated with operation of the project based on increases in concentrations of ozone and $PM_{2.5}$ that were estimated using a photochemical grid model (PGM). The concentration estimates of the PGM are then applied to the U.S. Environmental Protection Agency's Benefits Mapping and Analysis Program (BenMAP) to estimate the resulting health effects from concentration increases. PGMs and BenMAP were developed to assess air pollution and human health impacts over large areas and populations that far exceed the area of an average land use development project. These models were never designed to determine whether emissions generated by an individual development project would affect community health

or the date an air basin would attain an ambient air quality standard. Rather, they are used to help inform regional planning strategies based on cumulative changes in emissions within an air basin or larger geography.

It must be cautioned that within the typical project-level scope of CEQA analyses, PGMs are unable to provide precise, spatially defined pollutant data at a local scale. In addition, as noted in SMAQMD's Friant Guidance, "BenMAP estimates potential health effects from a change in air pollutant concentrations, but does not fully account for other factors affecting health such as access to medical care, genetics, income levels, behavior choices such as diet and exercise, and underlying health conditions" (2020). Thus, the modeling conducted for the health risk analysis is based on imprecise mapping and only takes into account one of the main public health determinants (i.e., environmental influences).

DISCUSSION OF PROJECT IMPACTS

Since the project was below the daily operational thresholds for criteria air pollutants, the Minor Project Health Screening Tool was used to estimate health risks. The results are shown in Table IS-3 and Table IS-4.

Table IS-3: PM2.5 Health Risk Estimates

$PM_{2.5}$ Health Endpoint	Age Range [1]	Incidences Across the Reduced Sacramento 4-km Modeling Domain Resulting from Project Emissions (per year)[2,5] (Mean)	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2] (Mean)	Percent of Background Health Incidences Across the 5-Air-District Region[3]	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
Respiratory					
Emergency Room Visits, Asthma	0 - 99	1.1	0.97	0.0053%	18419
Hospital Admissions, Asthma	0 - 64	0.074	0.065	0.0035%	1846
Hospital Admissions, All Respiratory	65 - 99	0.29	0.23	0.0011%	19644
Cardiovascular					
Hospital Admissions, All Cardiovascular (less Myocardial Infarctions)	65 - 99	0.15	0.13	0.00053%	24037
Acute Myocardial Infarction, Nonfatal	18 - 24	0.00013	0.000086	0.0023%	4
Acute Myocardial Infarction, Nonfatal	25 - 44	0.0091	0.0082	0.0027%	308
Acute Myocardial Infarction, Nonfatal	45 - 54	0.019	0.017	0.0023%	741
Acute Myocardial Infarction, Nonfatal	55 - 64	0.030	0.027	0.0022%	1239
Acute Myocardial Infarction, Nonfatal	65 - 99	0.096	0.083	0.0017%	5052

Mortality					
Mortality, All Cause	30 - 99	2.0	1.6	0.0035%	44766

Notes:
1. Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the USEPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.
2. Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or "background health incidence") values. Health effects are shown for the Reduced Sacramento 4-km Modeling Domain and the 5-Air-District Region.
3. The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, the background incidence rates cover the 5-Air-District Region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP.
4. The total number of health incidences across the 5-Air-District Region is calculated based on the modeling data. The information is presented to assist in providing overall health context.
5. The technical specifications and map for the Reduced Sacramento 4-km Modeling Domain are included in Appendix A, Table A-1 and Appendix B, Figure B-2 of the *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District.*

Table IS-4: Ozone Health Risk Estimates

Ozone Health Endpoint	**Age Range[1]**	**Incidences Across the Reduced Sacramento 4-km Modeling Domain Resulting from Project Emissions (per year)[2,5]**	**Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2]**	**Percent of Background Health Incidences Across the 5-Air-District Region[3]**	**Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]**
		(Mean)	**(Mean)**		
Respiratory					
Hospital Admissions, All Respiratory	65 - 99	0.079	0.058	0.00029%	19644
Emergency Room Visits, Asthma	0 - 17	0.43	0.35	0.0059%	5859
Emergency Room Visits, Asthma	18 - 99	0.67	0.54	0.0043%	12560
Mortality					
Mortality, Non-Accidental	0 - 99	0.049	0.038	0.00012%	30386

Notes:
1. Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the USEPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.

2. Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or "background health incidence") values. Health effects are shown for the Reduced Sacramento 4-km Modeling Domain and the 5-Air-District Region.
3. The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, the background incidence rates cover the 5-Air-District Region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP.
4. The total number of health incidences across the 5-Air-District Region is calculated based on the modeling data. The information is presented to assist in providing overall health context.
5. The technical specifications and map for the Reduced Sacramento 4-km Modeling Domain are included in Appendix A, Table A-1 and Appendix B, Figure B-2 of the *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District.*

Again, it is important to note that the "model outputs are derived from the numbers of people who would be affected by [the] project due to their geographic proximity and based on average population through the Five-District-Region. The models do not take into account population subgroups with greater vulnerabilities to air pollution, except for ages for certain endpoints" (SMAQMD 2020). Therefore, it would be misleading to correlate the levels of criteria air pollutant and precursor emissions associated with project implementation to specific health outcomes. While the effects noted above could manifest in individuals, actual effects depend on factors specific to each individual, including life stage (e.g., older adults are more sensitive), preexisting cardiovascular or respiratory diseases, and genetic polymorphisms. Even if this specific medical information was known about each individual, there are wide ranges of potential outcomes from exposure to ozone precursors and particulates, from no effect to the effects listed in the tables. Ultimately, the health effects associated with the project, using the SMAQMD guidance "are conservatively estimated, and the actual effects may be zero" (SMAQMD 2020).

CONCLUSION

Neither SMAQMD nor the County of Sacramento have adopted thresholds of significance for the assessment of health risks related to the emission of criteria pollutants. Furthermore, an industry standard level of significance has not been adopted or proposed. Due to the lack of adopted thresholds of significance the health risks, this data is presented for informational purposes and does not represent an attempt to arrive at any level-of-significance conclusions.

NOISE

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

- May involve the use of pile driving or other methods during construction that would produce excessive groundborne vibration or noise levels at the property boundary.

GROUNDBORNE VIBRATION

The proposed project involves the preparation of geological foundation measures that may include the use of driving piles, which have the potential to create groundborne

vibration. To quantify reference vibration levels generated by heavy equipment typically used in the proposed construction activities, the analysis uses vibration measurement results from similar pieces equipment conducting similar activities (Table IS-5).

Table IS-5: Reference Heavy Equipment Vibration Levels

Vibration Source	Measurement Distance (Feet)	Peak Particle Velocity (inch/second)
Bulldozer	35	0.0209
Front-Loaders	100	0.0047
Haul Truck	100	0.0062
Water Truck	100	0.0070
Rock Drill	50	0.0187

The California Department of Transportation (Caltrans) has developed criteria that are commonly applied as an industry standard to determine the impacts of project vibration relative to human annoyance and structural damage. Caltrans determines that the vibration level of 80 VdB (0.04 in/sec PPV) would be distinctly perceptible. Therefore, remaining less than 80 VdB at residential uses would avoid human annoyance. Also, Caltrans recommends staying below 0.3 (in/sec peak particle velocity (PPV) at older residential structures and below 0.5 in/sec PPV for new residential structures, to avoid structural damage (Caltrans 2020).

Pile driving for foundation installation could result in excessive vibration for sensitive receptors. For continuous or frequent intermittent vibration sources, a vibration level of 0.25 inch per second peak particle velocity (in/sec ppv) is considered a criterion that would protect against significant architectural or structural damage. The general range at which vibration becomes distinct to strongly perceptible is 0.04–0.10 in/sec ppv. Vibration measurement results shown in Table IS-3 indicate that heavy equipment-generated vibration levels would be below the thresholds for annoyance and damage to structures even at the very close measurement locations of 35–100 feet from the operating equipment. As a result, given the setback from the proposed operations relative to the nearest receivers (approximately 100 feet to the residence to the south), project vibration levels generated by heavy earthmoving equipment are expected to be below the threshold of perception. Therefore, the exposure of persons to or generation of excessive groundborne vibration or noise levels as a result of implementing the proposed project would be ***less than significant***.

HYDROLOGY AND WATER QUALITY

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

- Substantially alter the existing drainage pattern of the project area and/or increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

- Develop within a 100-year floodplain as mapped on a federal Flood Insurance Rate Map or within a local flood hazard area.

- Place structures that would impede or redirect flood flows within a 100-year floodplain.

- Expose people or structures to a substantial risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

- Create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems.

- Create substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality.

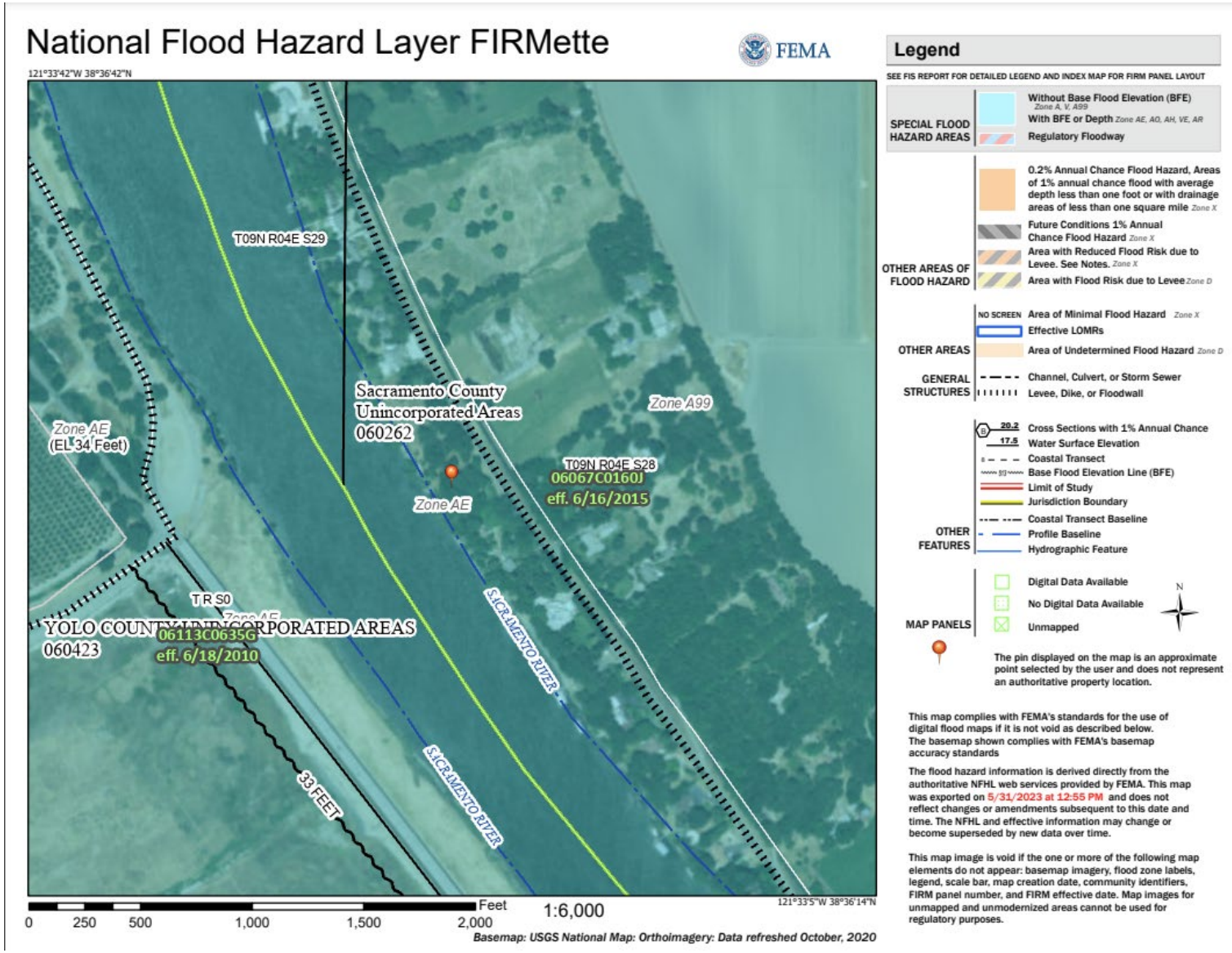
FLOODPLAIN

The project site is located on the river side of the Garden Highway levee this area is identified as being subject to 200-year urban levels of flood protection (ULOP) without levee protection. Therefore, the project is within ULOP applicability as established by SB-5. SB-5 was one of several bills passed in 2007 that amended the California Water Code and Government Code to strengthen flood protection and link land use planning to flood planning. One of the primary purposes of SB-5 and related legislation is to better tie local land use decisions that allow development in floodplains to the potential consequences in the event of a levee break. In addition, the site is identified as being within the Federal Emergency Management Agency (FEMA) Flood Zone area; the 100-year floodplain, Flood Zone AE (flood map number 06067C0160J see Plate IS-4), which is a designated and regulated floodway. To the east of the project site and the levee the area is designated as Flood Zone A99.

The property is within the Designated Floodways (DF's) adopted by the Central Valley Flood Protection Board (CVFPB). A Central Valley Flood Protection Board (CVFPB) Encroachment Permit is required for all proposed work or uses which encroach into rivers, waterways, and floodways, within and adjacent to federal and State authorized flood control projects, Regulated Streams (CCR Title 23, Waters, Division 1, Table 8.1) and within Designated Floodways (DF's) that have been adopted by the Board. In addition, the project is required to comply with the provisions of the County's Floodplain Management Ordinance, including all structures meet the minimum requirements for flood elevation and levee setbacks, as applicable.

With compliance, impacts to hydrology, drainage and flooding would be ***less than significant***.

Plate IS-4 - FEMA Map



WATER QUALITY

CONSTRUCTION WATER QUALITY: EROSION AND GRADING

Construction on undeveloped land exposes bare soil, which can be mobilized by rain or wind and displaced into waterways or become an air pollutant. Construction equipment can also track mud and dirt onto roadways, where rains will wash the sediment into storm drains and thence into surface waters. After construction is complete, various other pollutants generated by site use can also be washed into local waterways. These pollutants include, but are not limited to, vehicle fluids, heavy metals deposited by vehicles, and pesticides or fertilizers used in landscaping.

Sacramento County has a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit issued by Regional Water Board. The Municipal Stormwater Permit requires the County to reduce pollutants in stormwater discharges to the maximum extent practicable and to effectively prohibit non-stormwater discharges. The County complies with this permit in part by developing and enforcing ordinances and requirements to reduce the discharge of sediments and other pollutants in runoff from newly developing and redeveloping areas of the County.

The County has established a Stormwater Ordinance (Sacramento County Code 15.12). The Stormwater Ordinance prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance system and local creeks. It applies to all private and public projects in the County, regardless of size or land use type. In addition, Sacramento County Code 16.44 (Land Grading and Erosion Control) requires private construction sites disturbing one or more acres or moving 350 cubic yards or more of earthen material to obtain a grading permit. To obtain a grading permit, project proponents must prepare and submit for approval an Erosion and Sediment Control (ESC) Plan describing erosion and sediment control best management practices (BMPs) that will be implemented during construction to prevent sediment from leaving the site and entering the County's storm drain system or local receiving waters. Construction projects not subject to SCC 16.44 are subject to the Stormwater Ordinance (SCC 15.12) described above.

In addition to complying with the County's ordinances and requirements, construction sites disturbing one or more acres are required to comply with the State's General Stormwater Permit for Construction Activities (CGP). CGP coverage is issued by the State Water Resources Control Board (State Board) http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml and enforced by the Regional Water Board. Coverage is obtained by submitting a Notice of Intent (NOI) to the State Board prior to construction and verified by receiving a WDID#. The CGP requires preparation and implementation of a site-specific Stormwater Pollution Prevention Plan (SWPPP) that must be kept on site at all times for review by the State inspector.

Applicable projects applying for a County grading permit must show proof that a WDID # has been obtained and must submit a copy of the SWPPP. Although the County has no enforcement authority related to the CGP, the County does have the authority to ensure

sediment/pollutants are not discharged and is required by its Municipal Stormwater Permit to verify that SWPPPs include the minimum components.

The project must include an effective combination of erosion, sediment and other pollution control BMPs in compliance with the County ordinances and the State's CGP.

Erosion controls should always be the *first line of defense*, to keep soil from being mobilized in wind and water. Examples include stabilized construction entrances, tackified mulch, 3-step hydroseeding, spray-on soil stabilizers and anchored blankets. Sediment controls are the *second line of defense*; they help to filter sediment out of runoff before it reaches the storm drains and local waterways. Examples include rock bags to protect storm drain inlets, staked or weighted straw wattles/fiber rolls, and silt fences.

In addition to erosion and sediment controls, the project must have BMPs in place to keep other construction-related wastes and pollutants out of the storm drains. Such practices include, but are not limited to: filtering water from dewatering operations, providing proper washout areas for concrete trucks and stucco/paint contractors, containing wastes, managing portable toilets properly, and dry sweeping instead of washing down dirty pavement.

It is the responsibility of the project proponent to verify that the proposed BMPs for the project are appropriate for the unique site conditions, including topography, soil type and anticipated volumes of water entering and leaving the site during the construction phase. In particular, the project proponent should check for the presence of colloidal clay soils on the site. Experience has shown that these soils do not settle out with conventional sedimentation and filtration BMPs. The project proponent may wish to conduct settling column tests in addition to other soils testing on the site, to ascertain whether conventional BMPs will work for the project.

If sediment-laden or otherwise polluted runoff discharges from the construction site are found to impact the County's storm drain system and/or Waters of the State, the property owner will be subject to enforcement action and possible fines by the County and the Regional Water Board.

Project compliance with requirements outlined above, as administered by the County and the Regional Water Board will ensure that project-related erosion and pollution impacts are ***less than significant*.**

OPERATION: STORMWATER RUNOFF

Development and urbanization can increase pollutant loads, temperature, volume and discharge velocity of runoff over the predevelopment condition. The increased volume, increased velocity, and discharge duration of stormwater runoff from developed areas has the potential to greatly accelerate downstream erosion and impair stream habitat in natural drainage systems. Studies have demonstrated a direct correlation between the degree of imperviousness of an area and the degradation of its receiving waters. These impacts must be mitigated by requiring appropriate runoff reduction and pollution prevention controls to minimize runoff and keep runoff clean for the life of the project.

The County requires that projects include source and/or treatment control measures on selected new development and redevelopment projects. Source control BMPs are intended to keep pollutants from contacting site runoff. Examples include "No Dumping-Drains to Creek/River" stencils/stamps on storm drain inlets to educate the public, and providing roofs over areas likely to contain pollutants, so that rainfall does not contact the pollutants. Treatment control measures are intended to remove pollutants that have already been mobilized in runoff. Examples include vegetated swales and water quality detention basins. These facilities slow water down and allow sediments and pollutants to settle out prior to discharge to receiving waters. Additionally, vegetated facilities provide filtration and pollutant uptake/adsorption. The project proponent should consider the use of "low impact development" techniques to reduce the amount of imperviousness on the site, since this will reduce the volume of runoff and therefore will reduce the size/cost of stormwater quality treatment required. Examples of low impact development techniques include pervious pavement and bioretention facilities.

The County requires developers to utilize the *Stormwater Quality Design Manual for the Sacramento Region, 2018* (Design Manual) in selecting and designing post-construction facilities to treat runoff from the project. Regardless of project type or size, developers are required to implement the minimum source control measures (Chapter 4 of the Design Manual). Low impact development measures and Treatment Control Measures are required of all projects exceeding the impervious surface threshold defined in Table 3-2 and 3-3 of the Design Manual. Further, depending on project size and location, hydromodification control measures may be required (Chapter 5 of the Design Manual).

Updates and background on the County's requirements for post-construction stormwater quality treatment controls, along with several downloadable publications, can be found at the following websites:

http://www.waterresources.saccounty.net/stormwater/Pages/default.aspx

http://www.beriverfriendly.net/Newdevelopment/

The final selection and design of post-construction stormwater quality control measures is subject to the approval of the County Department of Water Resources; therefore, they should be contacted as early as possible in the design process for guidance. Project compliance with requirements outlined above will ensure that project-related stormwater pollution impacts are ***less than significant*.**

GEOLOGY AND SOILS

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

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

A geology and soils summary was provided as part of a Cultural Resource Study provided by the applicant team. Rosenthal and Willis (2017:2) describe the geology of the Sacramento Valley as a large, asymmetric, structural trough (syncline) formed by westward-tilting blocks of plutonic and metamorphic rocks on the eastern side, and highly folded and faulted blocks of metamorphic rocks (Franciscan) on the western side. This basin has been partially filled by a thick sequence (up to 12.4 miles [20 kilometers] thick) of sedimentary rocks and alluvial deposits that range from late Jurassic to Historical in age. During the Pleistocene, erosion of the Sierra Nevada led to the deposition of large alluvial fans at the base of the foothills along the eastern side of the Sacramento Valley. Glacial conditions are generally credited for the deposition of these fans, while subsequent interglacial periods are marked by landscape stability, soil formation, and channel incision. Subsequent depositional cycles during the Holocene progressively buried downstream sections of many older alluvial fans and also led to the formation of inset stream terraces and nested alluvial fans along the foothills (Rosenthal and Willis 2017).

PROJECT SITE CONDITIONS

SUBSURFACE CONDITIONS

According to the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) Web Soil Survey websites (NRCS 2022), one soil type is located within the project area: Sailboat silt loam (206), partially drained, 0 to 2 percent slopes, MLRA 16. The top 28 inches contain a silt loam and a stratified clay loam extending down to 62 inches below surface. The parent material is alluvium derived from igneous, metamorphic, and sedimentary rock.

GROUNDWATER CONDITIONS

The project site is located on top of the levee along the Sacramento River. Given the uniformity of levee construction and alluvial deposits along the river channel, it is reasonable to assume that groundwater conditions at the project site are similar to other projects located on the levee. Previous groundwater studies have shown that groundwater was encountered during the subsurface exploration at a depth of approximately 20 feet below ground surface (bgs). The depth at which groundwater is encountered in the area is generally dependent on the water level of the adjacent river. Based on observations, the groundwater level was encountered approximately 5 to 8 feet below the water level of the river and will typically rise and fall with the water level.

PROJECT IMPACTS: GEOLOGIC STABILITY

The project site could be subject to static and seismically induced settlements, and seismically induced lateral displacements. As such, the use of shallow conventional foundations alone is not a feasible option. It is recommended that the chosen foundation

system provide adequate support for the structure and address the identified geo technical constraints.

RECOMMENDATIONS FOR STATIC SETTLEMENT AND INSTABILITY

Static settlement and instability are anticipated based on the relatively soft, near surface conditions. It is recommended to over-excavate the near surface soils under the proposed working area and replace these materials with engineered fill.

RECOMMENDATIONS FOR SEISMICALLY INDUCED SETTLEMENTS AND LATERAL DISPLACEMENTS

Due to the potential for liquefaction and lateral spreading it is recommended that the following options be considered to address these conditions. Measures for liquefaction and lateral spreading have a range of costs and complexity. The selected measures should, at a minimum, provide protection for life safety:

1. Deep Foundations
2. Ground Improvement

DEEP FOUNDATIONS

Due to the potential presence of soft, fine-grained soils and potentially liquefiable soils underlying the site, the use of conventional shallow foundation is not feasible due to the excessive static settlement, potential for seismically induced settlement, and potential for seismically induced lateral displacement. Therefore, the proposed residence should be supported by deep foundations bearing within the stiff silts and clays approximately 60 to 65 feet below the existing surface grade. Possible deep foundation include augercast piles (ACP), drill displacement piles (DDP), and driven pipe piles. These foundation systems are designed and installed by specialty foundation contractors. The resulting depth of these foundations may extend tens of feet below the firm soil horizon to account for down drag settlements, and bending by lateral spread.

GROUND IMPROVEMENT

In place of deep foundations, ground improvement methods may provide adequate mitigation against the identified geotechnical constraints. Conventional shallow or mat foundations may be used at the project site, provided that the selected ground improvement method(s) adequately addresses geotechnical constraints. The use of conventional shallow or mat foundations would include over-excavation of near surface soils and placement of engineered fills prior to ground improvement. These over-excavation and recompaction efforts may be necessary for site access by the ground improvement contractor. The structural engineer should work with the ground improvement design-build contractor to design the shallow or mat foundations to be sufficiently stiff to address the potential settlement of soil and ultimate, differential settlement damages to the structure.

A qualified geotechnical engineer will provide site specific recommendations related to deep foundations or ground improvements to ensure that the project would result in

hazards related to geologic instability. With the implementation of either measures the potential impacts to geology and soils would be ***less than significant***.

BIOLOGICAL RESOURCES

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

- Have a substantial adverse effect on any special status species, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community.
- Have a substantial adverse effect on riparian habitat or other sensitive natural communities.
- Have a substantial adverse effect on streams, wetlands, or other surface waters that are protected by federal, state, or local regulations and policies.
- Have a substantial adverse effect on the movement of any native resident or migratory fish or wildlife species.
- Adversely affect or result in the removal of native or landmark trees.

BIOLOGICAL RESOURCES – REGULATORY SETTING

FEDERAL REGULATIONS

FEDERAL ENDANGERED SPECIES ACT

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

MIGRATORY BIRD TREATY ACT

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

STATE REGULATIONS

STATE ENDANGERED SPECIES ACT

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

CALIFORNIA FISH AND GAME CODE, SECTION 3503.5 - RAPTOR NESTS

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

LOCAL REGULATIONS

COUNTY OF SACRAMENTO GENERAL PLAN

The Conservation Element of the Sacramento County General Plan (under Policy CO-58) currently provides protection to various ecosystems. Specifically, it "ensures no net loss of wetlands, riparian woodlands, and oak woodlands." The General Plan also seeks to protect landmark and heritage trees (collectively referred to as "protected trees"). "Landmark trees" are defined as ones that are "especially prominent and stately." "Heritage trees" are defined as native oaks that exceed 60 inches in circumference. Policies CO-137, CO- 138, CO-139, CO-140, and CO-141 encourage protection and preservation of landmark and heritage trees, and Policy CO-145 requires mitigation by creation of new tree canopy equivalent to the acreage of non-native tree canopy removed.

BIOLOGICAL RESOURCES – IMPACTS AND ANALYSIS

SPECIAL STATUS SPECIES

Staff review of the project site, and search of the California Natural Diversity Database (CNDDB) species list was used to determine the potential habitats and species which could be impacted by the project. Some sensitive habitats, plants, and animals occur within the West Sacramento quadrangle. The CNDDB indicates documented occurrences

of bald eagle, least Bells vireo, Swainsons hawk, tricolored blackbird, Californinia black rail, western yellow-billed cuckoo, longfin smelt, chinook salmon – Sacramento River winter-run, Delta smelt, green sturgeon, steelhead, valley elderberry longhorn beetle (VELB), giant garter snake within the specific quadrangles. The closest occurrences of the species listed above (i.e. Swainson's hawk) is within the project limits. The CNDDB shows there are no records of VELB being on the project site with the nearest record of a VELB approximately 0.95 miles to the southeast of the project site. However, during the preparation of the arborist report one elderberry plant was found on the property. This elderberry plant could be habitat for VELB. The project site does not contain habitat to support giant gartersnake or tricolor black bird. The neighboring Sacramento River could support longfin smelt, green sturgeon, and steelhead; however, the project will not impact the river. The species that have the potential for occurrence on the project site are discussed in further detail below.

VALLEY ELDERBERRY LONG HORN BEETLE

The VELB, was listed as a Federally threatened species on August 8, 1980. The beetle's range extends throughout California's Central Valley and associated foothills. It is a wood boring beetle that is completely dependent on its host plant, elderberry (*Sambucus* sp.). Adult beetles are short-lived and likely to feed on the flowers of the elderberry shrub. The majority of the species' life is spent in larval form within the stem of an elderberry plant where it feeds on the pith of larger stems and roots during development. Adults emerge from the stems in late March through June, near the time elderberries produce flowers. The presence of exit holes in elderberry stems, resulting from adult emergence, is often the only exterior evidence that a plant has been occupied by the beetle (USFWS 1984).

Elderberry shrubs are a common component of the remnant riparian forests and adjacent upland habitats of the Central Valley. Vegetation in these riparian communities commonly includes species such as Fremont cottonwood (*Populus fremontii*), California sycamore (*Plantanus recemosa*), willows (S*alix* spp.), valley oak (*Quercus lobata*), box elder (*Acer negundo* var. *californium*), and Oregon ash (*Fraxinus latifolia*). VELB is more abundant in dense native plant habitats with mature overstory and mixed understory (USFWS 1999).

PROJECT IMPACTS - VELB

The Project site is not located within Critical Habitat for VELB. Critical Habitat was designated for this species in 1980 (45 No.155 FR 52803 52807). There are elderberry clumps growing within the project site (shown in blue on Plate IS-2).

No elderberry shrubs will be removed as a result of the project. The most recent USFWS guidance (2017) has established protocols to minimize impacts to VELB, including implementing an avoidance buffer of at least 25 feet around elderberry plants. As shrubs are within the proposed development area, mitigation is proposed so that no construction, hauling, or staging will take place within 25 feet of identified elderberry plants. The project has been designed to avoid impacts to elderberry shrubs and VELB to the maximum extent possible. Mitigation has been included to ensure that a 25 foot buffer is maintained around elderberry plants. Thus, impacts to VELB are ***less than significant.***

SWAINSON'S HAWK

The Swainson's hawk (*Buteo swainsoni*) is listed as a threatened species by the State of California and is a candidate for federal listing as threatened or endangered. It is a migratory raptor typically nesting in or near valley floor riparian habitats during spring and summer months. Swainson's hawks were once common throughout the state, but various habitat changes, including the loss of nesting habitat (trees) and the loss of foraging habitat through the conversion of native Central Valley grasslands to certain incompatible agricultural and urban uses has caused an estimated 90% decline in their population.

Swainson's hawks feed primarily upon small mammals, birds, and insects. Their typical foraging habitat includes native grasslands, alfalfa, and other hay crops that provide suitable habitat for small mammals. Certain other row crops and open habitats also provide some foraging habitat. The availability of productive foraging habitat near a Swainson's hawk's nest site is a critical requirement for nesting and fledgling success. In central California, about 85% of Swainson's hawk nests are within riparian forest or remnant riparian trees. CEQA analysis of impacts to Swainson's hawks consists of separate analyses of impacts to nesting habitat and foraging habitat.

The CEQA analysis provides a means by which to ascertain impacts to the Swainson's hawk. When the analysis identifies impacts, mitigation measures are established that will reduce impacts to the species to a less than significant level. Project proponents are cautioned that the mitigation measures are designed to reduce impacts and do not constitute an incidental take permit under the California Endangered Species Act (CESA). Anyone who directly or incidentally takes a Swainson's hawk, even when in compliance with mitigation measures established pursuant to CEQA, may violate the California Endangered Species Act.

NESTING HABITAT IMPACT METHODOLOGY

For determining impacts to and establishing mitigation for nesting Swainson's hawks in Sacramento County, CDFW recommends utilizing the methodology set forth in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk TAC 2000). The document recommends that surveys be conducted for the two survey periods immediately prior to the start of construction. The five survey periods are defined by the timing of migration, courtship, and nesting in a typical year (refer to Table IS-6. Surveys should extend a ½-mile radius around all project activities, and if active nesting is identified, CDFW should be contacted.

Table IS-6: Recommended Survey Periods for Swainson's Hawk (TAC 2000)

Period #	Timeframe	# of surveys required	Notes
I.	Jan. 1 – Mar. 20	1	Optional, but recommended
II.	Mar. 20 – Apr. 5	3	
III.	Apr. 5 – Apr. 20	3	
IV.	Apr. 21 – June 10	N/A	Initiating surveys is not recommended during this period
V.	June 10 – July 30	3	

For example, if a project is scheduled to begin on June 20, three surveys should be completed in Period III and three surveys in Period V, as surveys should not be initiated in Period IV. It is always recommended that surveys be completed in Periods II, III and V.

SWAINSON'S HAWK NESTING HABITAT - PROJECT IMPACTS

The project site is located within the area of the nearest recorded Swainson's hawk occurrence and there are two more Swainson's hawk nesting sites within 0.5 miles. The project site contains numerous mature trees that could provide adequate nesting habitat for Swainson's hawk, therefore, preconstruction surveys for nesting hawks are necessary prior to construction. The purpose of the survey requirement is to ensure that construction activities do not agitate nesting hawks, potentially resulting in nest abandonment or other harm to nesting success. If Swainson's hawk nests are found, the developer is required to contact CDFW to determine what measures need to be implemented in order to ensure that nesting hawks remain undisturbed. The measures selected will depend on many variables, including the distance of activities from the nest, the types of activities, and whether the landform between the nest and activities provides any kind of natural screening. According to the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk TAC 2000). The mitigation described above will ensure that impacts to nesting Swainson's hawk will be ***less than significant***.

NESTING BIRDS OF PREY

This section addresses raptors which are not listed as endangered, threatened, or of special concern, but are nonetheless afforded general protections by the Fish and Game Code. Raptors and their active nests are protected by the California Fish and Game Code Section 3503.5, which states: It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey, or raptors) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. Section 3(19) of the Federal Endangered Species Act defines the term "take" means to harass, harm, pursue, hunt, shoot, wound,

kill, trap, capture, or collect, or to attempt to engage in any such conduct. Causing a bird to abandon an active nest may cause harm to egg(s) or chick(s) and is therefore considered "take." Thus, take may occur both as a result of cutting down a tree or as a result of activities nearby an active nest which cause nest abandonment.

Raptors within the Sacramento region include tree-nesting species such as the red-tailed hawk and red-shouldered hawk, as well as ground-nesting species such as the northern harrier. The following raptor species are identified as "special animals" due to concerns over nest disturbance: Cooper's hawk, sharp-shinned hawk, golden eagle, northern harrier, and white-tailed kite.

The project site contains numerous mature trees that could serve as suitable habitat for nesting raptors. If present, nesting raptors can be disturbed by construction equipment if appropriate measures are not taken. To avoid impacts to nesting raptors, mitigation involves pre-construction nesting surveys to identify any active nests and to implement avoidance measures if nests are found – if construction will occur during the nesting season of March 1 to September 15. The purpose of the survey requirement is to ensure that construction activities do not agitate or harm nesting raptors, potentially resulting in nest abandonment or other harm to nesting success. If nests are found, the developer is required to contact California Fish and Wildlife to determine what measures need to be implemented in order to ensure that nesting raptors remain undisturbed. The measures selected will depend on many variables, including the distance of activities from the nest, the types of activities, and whether the landform between the nest and activities provides any kind of natural screening. If no active nests are found during the focused survey, no further mitigation will be required. Mitigation will ensure that impacts to nesting raptors will be ***less than significant***.

MIGRATORY BIRDS

The Migratory Bird Treaty Act of 1918, which states "unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill" a migratory bird. Section 3(19) of the Federal Endangered Species Act defines the term "take" to mean to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Causing a bird to abandon an active nest may cause harm to egg(s) or chick(s) and is therefore considered "take."

The project site contains numerous mature trees that could serve as suitable habitat for migratory birds. If present, migratory birds can be disturbed by construction equipment if appropriate measures are not taken. To avoid take of nesting migratory birds, mitigation has been included to require that activities either occur outside of the nesting season, or to require that nests be buffered from construction activities until the nesting season is concluded. Impacts to migratory birds are ***less than significant***.

NATIVE TREES

Sacramento County has identified the value of its native and landmark trees and has adopted measures for their preservation. The Tree Ordinance (Chapter 19.04 and 19.12

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

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

Native trees other than oaks include Fremont cottonwood (*Populus fremontii*), California sycamore (*Platanus racemosa*), California black walnut (*Juglans californica*, which is also a List 1B plant), Oregon ash (*Fraxinus latifolia*), western redbud (*Cercis occidentalis),* gray pine (*Pinus sabiniana*), California white alder (*Alnus rhombifolia*), boxelder (*Acer negundo*), California buckeye (*Aesculus californica*), narrowleaf willow (*Salix exigua*), Gooding's willow (*Salix gooddingii*), red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), shining willow (*Salix lucida*), Pacific willow (*Salix lasiandra*), and dusky willow (*Salix melanopsis*).

TREE INVENTORY

The applicant provided a Preliminary Arborist Report & Tree Inventory (Arborist Report) prepared by California Tree and Landscape Consulting, Inc. (CalTLC). The Arborist Report identified the species, size, and location of onsite and overhanging offsite trees. CalTLC inventoried and evaluated trees four () inches or greater diameter at breast height (dbh) and all multi-trunk trees with an aggregate dbh of 10 inches or greater. A total of 61 trees were inventoried and evaluated. Four of the 61 trees have been slated for removal and all four () qualify as "protected trees" by the standards of the Sacramento County Tree Ordinance and Zoning Code (Table IS-7). . All trees identified are shown on Plate IS-2 the plate also shows the location of the trees to be removed and the potential building footprints.

Table IS-7: Tree Inventory of Protected Native Trees slated for removal

Tree #	Common Name	DBH (Inches)	Dripline (Feet)	Rating	Action	Encroachment or impacts from Development	Mitigation
4893	Valley Oak	16	28	Major structure or Health Problems	Remove	Conflict with building footprint	16 inches
4895	Valley Oak	6	11	Fair	Remove	Conflict with building footprint	6 inches
4896	Valley Oak	11	16	Major structure or health problems	Remove	Conflict with building footprint	11 inches
4897	Valley Oak	8	15	Major structure or Health Problems	Remove	Conflict with building footprint	8 inches

DISCUSSION OF PROJECT IMPACTS

ONSITE PROTECTED NATIVE TREES TO BE REMOVED

The applicant is proposing to remove four of the valley oak trees (Trees: 4893, 4895, 4896, and 4897) located on the project site. Tree removal is proposed as a result of conflict with the location of the proposed single family house. The removal of these four trees will require mitigation for the loss of the combined 41 inches.

County Policy requires replacement of native trees removed by planting in-kind native trees equivalent to the loss of 41 inches, or through payment on an inch by inch basis to the Sacramento Tree Foundation if planting is shown to be infeasible. Project impacts associated with the removal of protected native trees are ***less than significant***.

ONSITE NATIVE TREE ENCROACHMENT

Development of the project site could result in encroachment upon the driplines of five protected native trees (Table IS-8). Partial mitigation is applied to 6-inch or larger native oak trees when encroachment exceeds 20 percent of the dripline protection area, as defined by a circle using the distance from the trunk to the tip of the longest limb as a radius. The concept of partial mitigation stems from the fact that removal of more than 25-30 percent of a tree's root system or live canopy can result in early decline, if not death. The dripline protection area is the minimum protected area for a tree. A 20 percent encroachment threshold is utilized because of the difference between the extent of root systems and the minimum protected area. An encroachment of 20 percent of the dripline

protection area will likely impact 25-30 percent of the root system, if not more. Therefore the following encroachment thresholds are applied:

- Encroachment of 20 percent or less is considered a minor impact, and does not require mitigation.
- Encroachment of more than 20 percent and less than 50 percent requires partial mitigation based on the percentage of encroachment multiplied by the impacted tree's dbh.

Encroachment of 50 percent or more requires full mitigation for the tree.

Table IS-1: Project Site Trees with encroachment

Tree number	Common Name	DBH	Encroachment percentage	Mitigation required	Mitigation inches
4887	Valley Oak	5	37	No	NA
4898	Valley Oak	14	34	Yes	5 inches
4899	Valley Oak	14	27	Yes	4 inches
4890	Valley Oak	14	34	Yes	5 inches
4888	Valley Oak	12	33	Yes	4 inches

The proposed driveway location would encroach on these five trees with encroachment values ranging from 27 percent to 34 percent. Tree 4887 does not require mitigation because it is under the 6 inch protection threshold. Mitigation has been included for the partial mitigation of these four trees, equaling a total of 18 inches of native tree mitigation, utilizing the methodology described above.

In addition to permanent encroachment impacts from the proposed project, there could be temporary encroachment of protected trees during the construction phase. These could include construction equipment traveling over or parking withing the trees drip line area. Mitigation has been included to ensure that protective measures are in place during construction. Impacts to native trees due to potential encroachment are ***less than significant.***

CULTURAL RESOURCES

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

- Cause a substantial adverse change in the significance of a historical resource
- Have a substantial adverse effect on an archaeological resource
- Disturb any human remains, including those interred outside of formal cemeteries

Under CEQA, lead agencies must consider the effects of projects on historical resources and archaeological resources. A "historical resource" is defined as a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources, and any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant (Section 15064.5[a] of the Guidelines). Public Resources Code (PRC) Section 5042.1 requires that any properties that can be expected to be directly or indirectly affected by a proposed project be evaluated for CRHR eligibility. Impacts to historical resources that materially impair those characteristics that convey its historical significance and justify its inclusion or eligibility for the NRHP or CRHR are considered a significant effect on the environment (CEQA guidelines 15064.5)).

In addition to historically significant resources, an archeological site may meet the definition of a "unique archeological resource" as defined in PRC Section 21083.2(g). If unique archaeological resources cannot be preserved in place or left in an undisturbed state, mitigation measures shall be required (PRC Section 21083.2 (c)).

CEQA Guidelines Section 15064.5 (e) outlines the steps the lead agency shall take in the event of an accidental discovery of human remains in any location other than a dedicated cemetery.

CULTURAL SETTING

A Cultural Resources Inventory Report was prepared for the project by ECORP Consulting Inc. The following information and analysis is based on these reports.

A search of records and historical information on file at the North Central Information Center (NCIC) of the California Historical Resources Information System (CHRIS) was conducted in May 20, 2022 for the project area and a [one-half-mile] buffer.

The records search identified 2 previously recorded resources within the project site:

- Sacramento River Tribal Cultural Landscape
- Historic-Period Rural Historic Landscape District; Reclamation District

An archeological pedestrian survey was prepared for the project by ECORP. On May 25, 2022 ECORP conducted a field survey of the project site. The archaeologists walked parallel transects of 15 meter separation. The general morphological characteristics of the ground surface were inspected for indications of subsurface deposits that may be manifested on the surface, such as circular depressions or ditches. Whenever possible, ECORP examined the locations of subsurface exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances for artifacts or for indications of buried deposits. No subsurface investigations or artifact collections were undertaken during the pedestrian survey.

PROJECT IMPACTS

The 2022 field survey did not yield any historic-period or pre-contact cultural resources in the Project Area, matching the results of a 2017 survey. However, record search revealed two previously recorded districts that encompassed the Project Area. The Sacramento River Tribal Cultural Landscape was identified (see the Tribal Cultural Resources section of the initials study checklist below). Rural Historic Landscape District RD 1000 was previously determined eligible for the NRHP and CRHR with SHPO concurrence and is therefore considered a Historic Property under Section 106 and a Historical Resource under CEQA. The Project Area lies within the boundaries of this 55,000-acre district, however; no contributing elements to this district will be affected by Project activities. Therefore, Project activities will not have any significant effect on a Historic Property or Historical Resource.

The cultural resources inventory indicated that there is potential for subsurface cultural resources to be uncovered during construction, and recommended the project implement mitigation to ensure the protection of resources in the event there is a discovery during construction. Mitigation in the form of worker awareness training, archaeological monitoring and inadvertent discovery protocols has been included. In the event human remains are encountered during construction, mitigation is included specifying how to comply with CEQA Guidelines Section 15064.5 (e), Sections 5097.97 and 5097.98 of the State Public Resources Code, and Section 7050.5 of the State Health and Safety Code. Therefore, with mitigation, project impacts to cultural resources will be ***less than significant***.

GREENHOUSE GAS EMISSIONS

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

REGULATORY BACKGROUND

California has adopted statewide legislation addressing various aspects of climate change and GHG emissions mitigation. Much of this establishes a broad framework for the State's long-term GHG reduction and climate change adaptation program. Of particular importance is AB 32, which establishes a statewide goal to reduce GHG emissions back to 1990 levels by 2020, and Senate Bill (SB) 375 supports AB 32 through coordinated transportation and land use planning with the goal of more sustainable communities. SB 32 extends the State's GHG policies and establishes a near-term GHG

reduction goal of 40% below 1990 emissions levels by 2030. Executive Order (EO) S-03-05 identifies a longer-term goal for 2050.[1]

COUNTY OF SACRAMENTO CLIMATE ACTION PLANNING

In November of 2011, Sacramento County approved the Phase 1 Climate Action Plan Strategy and Framework document (Phase 1 CAP), which is the first phase of developing a community-level Climate Action Plan. The Phase 1 CAP provides a framework and overall policy strategy for reducing greenhouse gas emissions and managing our resources in order to comply with AB 32. It also highlights actions already taken to become more efficient, and targets future mitigation and adaptation strategies. This document is available at http://www.green.saccounty.net/Documents/sac_030843.pdf. The CAP contains policies/goals related to agriculture, energy, transportation/land use, waste, and water.

Goals in the section on agriculture focus on promoting the consumption of locally-grown produce, protection of local farmlands, educating the community about the intersection of agriculture and climate change, educating the community about the importance of open space, pursuing sequestration opportunities, and promoting water conservation in agriculture. Actions related to these goals cover topics related to urban forest management, water conservation programs, open space planning, and sustainable agriculture programs.

Goals in the section on energy focus on increasing energy efficiency and increasing the usage of renewable sources. Actions include implementing green building ordinances and programs, community outreach, renewable energy policies, and partnerships with local energy producers.

Goals in the section on transportation/land use cover a wide range of topics but are principally related to reductions in vehicle miles traveled, usage of alternative fuel types, and increases in vehicle efficiency. Actions include programs to increase the efficiency of the County vehicle fleet, and an emphasis on mixed use and higher density development, implementation of technologies and planning strategies that improve non-vehicular mobility.

Goals in the section on waste include reductions in waste generation, maximizing waste diversion, and reducing methane emissions at Kiefer landfill. Actions include solid waste reduction and recycling programs, a regional composting facility, changes in the waste vehicle fleet to use non-petroleum fuels, carbon sequestration at the landfill, and methane capture at the landfill.

Goals in the section on water include reducing water consumption, emphasizing water efficiency, reducing uncertainties in water supply by increasing the flexibility of the water allocation/distribution system, and emphasizing the importance of floodplain and open

[1] EO S-03-05 has set forth a reduction target to reduce GHG emissions by 80 percent below 1990 levels by 2050. This target has not been legislatively adopted.

space protection as a means of providing groundwater recharge. Actions include metering, water recycling programs, water use efficiency policy, water efficiency audits, greywater programs/policies, river-friendly landscape demonstration gardens, participation in the water forum, and many other related measures.

The Phase 1 CAP is a strategy and framework document. The County adopted the Phase 2A CAP (Government Operations) on September 11, 2012. Neither the Phase 1 CAP nor the Phase 2A CAP are "qualified" plans through which subsequent projects may receive CEQA streamlining benefits. The Communitywide CAP (Phase 2B) has been in progress for some time (https://planning.saccounty.net/PlansandProjectsIn-Progress/Pages/CAP.aspx) but was placed on hold in late 2018 pending in-depth review of CAP-related litigation in other jurisdictions.

The commitment to a Communitywide CAP is identified in General Plan Policy LU-115 and associated Implementation Measures F through J on page 117 of the General Plan Land Use Element. This commitment was made in part due to the County's General Plan Update process and potential expansion of the Urban Policy Area to accommodate new growth areas. General Plan Policies LU-119 and LU-120 were developed with SACOG to be consistent with smart growth policies in the SACOG Blueprint, which are intended to reduce VMT and GHG emissions. This second phase CAP is intended to flesh out the strategies involved in the strategy and framework CAP, and will include economic analysis, intensive vetting with all internal departments, community outreach/information sharing, timelines, and detailed performance measures. The County is currently preparing this second phase CAP and it is expected to be completed in 2020. The Countywide CAP was re-initiated in early 2020, with a target adoption of 12-18 months from July 1, 2020.

Thresholds of Significance

Addressing GHG generation impacts requires an agency to make a determination as to what constitutes a significant impact. Governor's Office of Planning and Research's (OPR's) Guidance does not include a quantitative threshold of significance to use for assessing a proposed development's GHG emissions under CEQA. Moreover, CARB has not established such a threshold or recommended a method for setting a threshold for proposed development-level analysis.

In April 2020, SMAQMD adopted an update to their land development project operational GHG threshold, which requires a project to demonstrate consistency with CARB's 2017 Climate Change Scoping Plan. The Sacramento County Board of Supervisors adopted the updated GHG threshold in December 2020. SMAQMD's technical support document, "Greenhouse Gas Thresholds for Sacramento County", identifies operational measures that should be applied to a project to demonstrate consistency.

All projects must implement Tier 1 Best Management Practices to demonstrate consistency with the Climate Change Scoping Plan. After implementation of Tier 1 Best Management Practices, project emissions are compared to the operational land use screening levels table (equivalent to 1,100 metric tons of CO2e per year). If a project's operational emissions are less than or equal to 1,100 metric tons of CO2e per year after implementation of Tier 1 Best Management Practices, the project will result in a less than

cumulatively considerable contribution and has no further action. Tier 1 Best Management Practices include:

- BMP 1 – no natural gas: projects shall be designed and constructed without natural gas infrastructure.

- BMP 2 – electric vehicle (EV) Ready: projects shall meet the current CalGreen Tier 2 standards.

    - EV Capable requires the installation of "raceway" (the enclosed conduit that forms the physical pathway for electrical wiring to protect it from damage) and adequate panel capacity to accommodate future installation of a dedicated branch circuit and charging station(s)

    - EV Ready requires all EV Capable improvements plus installation of dedicated branch circuit(s) (electrical pre-wiring), circuit breakers, and other electrical components, including a receptacle (240-volt outlet) or blank cover needed to support future installation of one or more charging stations

Projects that implement BMP 1 and BMP 2 can utilize the screening criteria for operation emissions outlined in Table IS-12. Projects that do not exceed 1,100 metric tons per year are then screened out of further requirements. For projects that exceed 1,100 metric tons per year, then compliance with BMP 3 is also required:

- BMP 3 – Reduce applicable project VMT by 15% residential and 15% worker relative to Sacramento County targets, and no net increase in retail VMT. In areas with above-average existing VMT, commit to provide electrical capacity for 100% electric vehicles.

SMAQMD's GHG construction and operational emissions thresholds for Sacramento County are shown in Table IS-8.

Table IS-2: SMAQMD Thresholds of Significance for Greenhouse Gases

Land Development and Construction Projects		
	Construction Phase	Operational Phase
Greenhouse Gas as CO_2e	1,100 metric tons per year	1,100 metric tons per year
Stationary Source Only		
	Construction Phase	Operational Phase
Greenhouse Gas as CO_2e	1,100 metric tons per year	10,000 metric tons per year

PROJECT IMPACTS

CONSTRUCTION-GENERATED GREENHOUSE GAS EMISSIONS

GHG emissions associated with the project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. As a single family residence, the project is within the screening criteria for construction related impacts related to air quality. The project site is less than 35 acres, and does not involve buildings more than 4 stories tall; demolition activities; significant trenching activities; an unusually compact construction schedule; cut-and-fill operations; or, import or export of soil materials requiring a considerable amount of haul truck activity. Basic Construction Emissions Control Practices have also been included as a mitigation measure with which the project must comply. The project meets the Sacramento Metropolitan Air Quality Management District's screening criteria for Ozone precursors. Therefore, construction-related GHG impacts are considered ***less than significant***.

OPERATIONAL PHASE GREENHOUSE GAS EMISSIONS

The project will implement BPM 1 and BMP 2 in its entirety. As such, the project can be compared to the operational screening table published by SMAQMD. The operational screening criteria is that for residential projects less than 56 units the operational emissions associated with the project are less than 1,100 MT of CO2e per year. Mitigation has been included such that the project will implement BMP 1 and BMP 2. The impacts from GHG emissions are ***less than significant with mitigation.***

ENVIRONMENTAL MITIGATION MEASURES

Mitigation Measures A-H are critical to ensure that identified significant impacts of the project are reduced to a level of less than significant. Pursuant to Section 15074.1(b) of the CEQA Guidelines, each of these measures must be adopted exactly as written unless both of the following occur: (1) A public hearing is held on the proposed changes; (2) The hearing body adopts a written finding that the new measure is equivalent or more effective

in mitigating or avoiding potential significant effects and that it in itself will not cause any potentially significant effect on the environment.

As the applicant, or applicant's representative, for this project, I acknowledge that project development creates the potential for significant environmental impact and agree to implement the mitigation measures listed below, which are intended to reduce potential impacts to a less than significant level.

Applicant _____ Date: _____

MITIGATION MEASURE A: AIRPORT NOISE INSULATION

To ensure compatibility with the adopted Airport Policy Area Boundaries for Sacramento International Airport, the following shall be required prior to issuance of building permits-

A. Demonstrate that the residence will provide minimum noise insulation to 45 dB CNEL within new residential dwellings, including detached single family dwellings, with windows closed in any habitable room.

B. Notification in the Public Report prepared by the California Department of Real Estate disclosing the fact to prospective buyers that the parcel is located within an Airport Policy Area.

C. An Avigation Easement prepared by the Sacramento County Counsel's Office granted to the County of Sacramento, recorded with the Sacramento County Recorder, and filed with Department of Airports. Such Avigation Easement shall acknowledge the property location within an Airport Planning Policy Area and shall grant the right of flight and unobstructed passage of all aircraft into and out of the subject Airport.

MITIGATION MEASURE B: BASIC CONSTRUCTION EMISSIONS CONTROL PRACTICES

The following Basic Construction Emissions Control Practices are considered feasible for controlling fugitive dust from a construction site. The practices also serve as best management practices (BMPs), allowing the use of the non-zero particulate matter significance thresholds.
Control of fugitive dust is required by District Rule 403 and enforced by District staff.

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.

- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.

- Use wet power vacuum street sweepers to remove any visible track out 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 (mph).

- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

The following practices describe exhaust emission control from diesel powered fleets working at a construction site. California regulations limit idling from both on-road and off-road diesel-powered equipment. The California Air Resources Board (CARB) enforces idling limitations and compliance with diesel fleet regulations.

- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.

- Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1]. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_cert1.html.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic.

MITIGATION MEASURE C: GEOLOGIC STABILITY

The project shall implement measures to prevent the potential for liquefaction and lateral spreading including the use of deep foundations, ground improvements, or other mechanisms as recommended by a qualified Geotechnical Engineer. Prior to approval of building permits, the applicant shall submit a report for verification, prepared by a qualified Geotechnical Engineer, outlining the measures to be incorporated for foundation stability.

MITIGATION MEASURE D: VALLEY ELDERBERRY LONGHORN BEETLE

In order to minimize impacts to valley elderberry longhorn beetle and their habitat to the maximum extent possible, the following avoidance and minimization efforts shall be adhered to:

- Prior to grading or other ground disturbances a survey will be conducted to determine location(s) of elderberry shrub(s).
- Project activities may occur up to 25 feet from the dripline of elderberry shrubs if precautions are implemented to minimize the potential for indirect impacts. An

avoidance area shall be established at least 25 feet from the drip line of an elderberry shrub for any activities that may damage or kill the elderberry shrub (e.g., trenching, paving, excavation). The project applicant shall implement avoidance and minimization measures specified in the USFWS Framework (USFWS 2017).

- To the extent feasible, excavation and trenching within 165 feet of elderberry shrubs shall occur outside of the VELB flight season (March through July).
- Signs shall be placed along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution." The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction.
- Contractors and work crews shall be educated on the status of the beetle, the need to avoid damaging the elderberry plants, and the possible penalties for not complying with these requirements.
- A qualified biologist shall monitor the work areas within 165 feet of elderberry shrubs at project-appropriate intervals to assure that all avoidance and minimization measures are implemented. The amount and duration of monitoring will depend on specific project activities and shall be determined by the qualified biologist and should be discussed with a USFWS biologist.

MITIGATION MEASURE E: SWAINSON'S HAWK NESTING HABITAT

If construction, grading, or project-related improvements are to commence between February 1 and September 15, focused surveys for Swainson's hawk nests shall be conducted by a qualified biologist within a ½-mile radius of project activities, in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk TAC 2000). To meet the minimum level of protection for the species, surveys should be completed for the two survey periods immediately prior to commencement of construction activities in accordance with the 2000 TAC recommendations. If active nests are found, CDFW shall be contacted to determine appropriate protective measures, and these measures shall be implemented prior to the start of any ground-disturbing activities. If no active nests are found during the focused survey, no further mitigation will be required.

MITIGATION MEASURE F: RAPTOR NEST PROTECTION

If construction activity (which includes clearing, grubbing, or grading) is to commence within 500 feet of suitable nesting habitat between March 1 and September 15, a survey for raptor nests shall be conducted by a qualified biologist. The survey shall cover all potential tree habitat on-site and off-site up to a distance of 500 feet from the project boundary. The survey shall occur within 30 days of the date that construction will encroach within 500 feet of suitable habitat. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity. If no active

nests are found during the survey, no further mitigation will be required. If any active nests are found, the Environmental Coordinator and California Fish and Wildlife shall be contacted to determine appropriate avoidance/protective measures. The avoidance/protective measures shall be implemented prior to the commencement of construction within 500 feet of an identified nest.

MITIGATION MEASURE G: MIGRATORY BIRD NEST PROTECTION

To avoid impacts to nesting migratory birds the following shall apply:

1. If construction activity (which includes clearing, grubbing, or grading) is to commence within 50 feet of nesting habitat between February 1 and August 31, a survey for active migratory bird nests shall be conducted no more than 14 day prior to construction by a qualified biologist.

2. Trees slated for removal shall be removed during the period of September through January, in order to avoid the nesting season. Any trees that are to be removed during the nesting season, which is February through August, shall be surveyed by a qualified biologist and will only be removed if no nesting migratory birds are found.

3. If active nest(s) are found in the survey area, a non-disturbance buffer, the size of which has been determined by a qualified biologist, shall be established and maintained around the nest to prevent nest failure. All construction activities shall be avoided within this buffer area until a qualified biologist determines that nestlings have fledged, or until September 1.

MITIGATION MEASURE H: NATIVE TREE REMOVAL

The removal of tree four valley oaks to implement the project would result in a loss of 41 dbh inches. Encroachment from the proposed driveway exceeding 20% of the dripline of 4 trees shall require partial mitigation totaling the equivalent of 18 dbh inches, which shall be compensated for by planting in-kind native trees equivalent to the dbh inches lost, based on the ratios listed below, at locations that are authorized by the Environmental Coordinator. On-site preservation of native trees that are less than 6 inches (<6 inches) dbh, may also be used to meet this compensation requirement. Native trees include: valley oak (*Quercus lobata*), and interior live oak (*Quercus wislizenii*).

Replacement tree planting shall be completed prior to approval of grading or improvement plans, whichever comes first. A total of 59 inches will require compensation.

Equivalent compensation based on the following ratio is required:

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

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

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

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

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

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

If tree replacement plantings are demonstrated to the satisfaction of the Environmental Coordinator to be infeasible for any or all trees removed, then compensation shall be through payment into the County Tree Preservation Fund. Payment shall be made at a

rate of $325.00 per dbh inch removed but not otherwise compensated, or at the prevailing rate at the time payment into the fund is made.

MITIGATION MEASURE I: NATIVE TREE PROTECTION

All portions of adjacent off-site oak trees that have driplines that extend onto the project site, and all off-site oak trees which may be impacted by utility installation and/or improvements associated with this project, shall be preserved and protected as follows:

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

b. Any protected trees on the site that require pruning shall be pruned by a certified arborist prior to the start of construction work. All pruning shall be in accordance with the American National Standards Institute (ANSI) A300 pruning standards and the International Society of Arboriculture (ISA) “Tree Pruning Guidelines.”

c. Temporary protective fencing shall be installed at least one foot outside the driplines of the oak trees prior to the start of construction work, in order to avoid damage to the trees and their root systems. Protective fencing shall be installed at one foot from the limit of work for retaining wall construction. Protective fencing must be must be maintained through the duration of construction.

d. No signs, ropes, cables (except those which may be installed by a certified arborist to provide limb support) or any other items shall be attached to the protected trees. Small metallic numbering tags for the purpose of preparing tree reports and inventories shall be allowed.

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

f. No grading (grade cuts or fills) shall be allowed within the driplines of oak trees. Grade cuts for the proposed retaining wall shall be performed under direct supervision of a certified arborist.

g. Drainage patterns on the site shall not be modified so that water collects or stands within, or is diverted across, the dripline of any protected tree.

h. No trenching shall be allowed within the driplines of protected trees. If it is absolutely necessary to install underground utilities within the dripline of a protected tree, the utility line shall be bored and jacked under the supervision of a certified arborist.

i. The construction of impervious surfaces within the driplines of protected trees shall be stringently minimized. When it is absolutely necessary, a piped aeration system per County standard detail shall be installed under the supervision of a certified arborist.

j. No sprinkler or irrigation system shall be installed in such a manner that sprays water or requires trenching within the driplines of protected trees. An above ground drip irrigation system is recommended.

Landscaping beneath oak trees may include non-plant materials such as bark mulch, wood chips, boulders, etc. The only plant species which shall be planted within the driplines of oak trees are those which are tolerant of the natural semi-arid environs of the trees. A list of such drought-tolerant plant species is available from the Office of Planning Environmental Review. Limited drip irrigation approximately twice per summer is recommended for the understory plants.

MITIGATION MEASURE J: ARCHAEOLOGICAL MONITORING

A full-time archaeological monitor shall be present for all earthmoving activities. The project proponent shall enlist the services of one monitor per active construction area. If an excavation area is too large for one monitor to effectively observe the soil removal, one or more additional monitors will be retained to observe the area.

MITIGATION MEASURE K CULTURAL AWARENESS TRAINING

Prior to the beginning of ground disturbance and during all periods of ground disturbance thereafter, the archaeological monitor, or equivalent qualified person approved by PER, will provide cultural resources training to all new employees within their first week of employment on the proper procedures to follow in the event that cultural resources are uncovered during project excavations. Employees working in ground-disturbing activities will not begin job-related tasks until they have received this training. Employee education will focus on the following issues:

1. The rationale for cultural resources monitoring
2. Regulatory policies and laws protecting resources and penalties for violations
3. Basic identification of cultural resources
4. The procedures to follow in case of a discovery of such resources

MITIGATION MEASURE L: CULTURAL RESOURCES UNANTICIPATED DISCOVERY

In the event that human remains are discovered in any location other than a dedicated cemetery, work shall be halted and the County Coroner contacted. For all other unexpected cultural resources discovered during project construction, work shall be halted until a qualified archaeologist may evaluate the resource encountered.

1. Pursuant to Sections 5097.97 and 5097.98 of the State Public Resources Code, and Section 7050.5 of the State Health and Safety Code, if a human bone or bone of unknown origin is found during construction, all work is to stop and the County

Coroner and the Office of Planning and Environmental Review shall be immediately notified. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission within 24 hours, and the Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent from the deceased Native American. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposition of, with appropriate dignity, the human remains and any associated grave goods.

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

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

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

MITIGATION MEASURE M: GREENHOUSE GASES BMPS

The project is required to incorporate the following Tier 1 Best Management Practices (BMPs)

- BMP 1: No natural gas: Projects shall be designed and constructed without natural gas infrastructure.

- BMP 2: Electric vehicle ready: Projects shall meet the current CalGreen Tier 2 standards, except all EV Capable spaces shall instead by EV Ready.

- EV Capable requires the installation of "raceway" (the enclosed conduit that forms the physical pathway for electrical wiring to protect it from damage) and adequate panel capacity to accommodate future installation of a dedicated branch circuit and charging station(s)
- EV Ready requires all EV Capable improvements plus installation of dedicated branch circuit(s) (electrical pre-wiring), circuit breakers, and other electrical components, including a receptacle (240-volt outlet) or blank cover needed to support future installation of one or more charging stations

MITIGATION MEASURE COMPLIANCE

Comply with the Mitigation Monitoring and Reporting Program (MMRP) for this project as follows:

1. The proponent shall comply with the MMRP for this project, including the payment of a fee to cover the Office of Planning and Environmental Review staff costs incurred during implementation of the MMRP. The MMRP fee for this project is $11,000.00. This fee includes administrative costs of $1,100.00.

2. Until the MMRP has been recorded and the administrative portion of the MMRP fee has been paid, no final parcel map or final subdivision map for the subject property shall be approved. Until the balance of the MMRP fee has been paid, no encroachment, grading, building, sewer connection, water connection or occupancy permit from Sacramento County shall be approved.

INITIAL STUDY CHECKLIST

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

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

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

3 Less than Significant or No Impact indicates that either a project will have an impact but the impact is considered minor or that a project does not impact the particular resource.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
1. **LAND USE** - Would the project:					
a. Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X		The project is consistent with environmental policies of the Sacramento County General Plan, Garden Highway Special Planning Area and Sacramento County Zoning Code.
b. Physically disrupt or divide an established community?			X		The project will not create physical barriers that substantially limit movement within or through the community.
2. **POPULATION/HOUSING -** Would the project:					
a. Induce substantial unplanned population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of infrastructure)?			X		The project will neither directly nor indirectly induce substantial unplanned population growth; the proposal is consistent with existing land use designations.
b. Displace substantial amounts of existing people or housing, necessitating the construction of replacement housing elsewhere?				X	The project will not result in the removal of existing housing, and thus will not displace substantial amounts of existing housing.
3. **AGRICULTURAL RESOURCES** - Would the project:					
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance or areas containing prime soils to uses not conducive to agricultural production?				X	The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on the current Sacramento County Important Farmland Map published by the California Department of Conservation. The site does not contain prime soils.
b. Conflict with any existing Williamson Act contract?				X	No Williamson Act contracts apply to the project site.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
c. Introduce incompatible uses in the vicinity of existing agricultural uses?			X		The project is located within the Garden Highway SPA and is surrounded by residential land uses. The project site has been designated for residential uses. Areas of agricultural production occur in the project vicinity. The addition of one house will not conflict with surrounding agriculture..
4. **AESTHETICS -** Would the project:					
a. Substantially alter existing viewsheds such as scenic highways, corridors or vistas?			X		The project does not occur in the vicinity of any scenic highways but the site is along Garden Highway, which as been identified as a scenic corridor. Refer to the Aesthetics discussion in the Environmental Effects section above
b. In non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings?			X		Construction will not substantially degrade the visual character or quality of the project site. It is acknowledged that aesthetic impacts are subjective and may be perceived differently by various affected individuals. Nonetheless, given the similar parcels sizes surrounding the proposed project, it is concluded that the project would not substantially degrade the visual character or quality of the project site or vicinity.
c. If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X		The project is not located in an urbanized area.
d. Create a new source of substantial light, glare, or shadow that would result in safety hazards or adversely affect day or nighttime views in the area?			X		The project will not result in a new source of substantial light, glare or shadow that would result in safety hazards or adversely affect day or nighttime views in the area.
5. **AIRPORTS -** Would the project:					
a. Result in a safety hazard for people residing or working in the vicinity of an airport/airstrip?				X	The project is located with the SMF Airport Policy Planning Area. Mitigation has been incorporated to reduce project impacts related to airports to a less than significant level. .

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
b. Expose people residing or working in the project area to aircraft noise levels in excess of applicable standards?				X	The project is located with the SMF Airport Policy Planning Area. Mitigation has been incorporated to reduce project impacts related to airports to a less than significant level. .
c. Result in a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft?				X	The project is located with the SMF Airport Policy Planning Area. Mitigation has been incorporated to reduce project impacts related to airports to a less than significant level. .
d. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X		The project does not involve or affect air traffic movement.
6. **PUBLIC SERVICES -** Would the project:					
a. Have an adequate water supply for full buildout of the project?			X		Private wells would be required to provide potable water to future development. As proposed, the project could result in the addition of one new water well to serve the project. The introduction of one well would add incrementally to a documented decline in the groundwater table in the County but it would not in itself constitute a significant environmental impact.
b. Have adequate wastewater treatment and disposal facilities for full buildout of the project?			X		Septic systems would be required. Sacramento County Code Chapters 6.28 and 6.32 provide rules and regulations for water wells and septic systems that are designed to protect water quality. The Environmental Health Division of the County Environmental Management Department has permit approval authority for any new water wells and septic systems on the site.
c. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X		The Kiefer Landfill has capacity to accommodate solid waste until the year 2050.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
d. Result in substantial adverse physical impacts associated with the construction of new water supply or wastewater treatment and disposal facilities or expansion of existing facilities?			X		The project will not require construction or expansion of new water supply, wastewater treatment, or wastewater disposal facilities.
e. Result in substantial adverse physical impacts associated with the provision of storm water drainage facilities?			X		Project construction would not require the addition of new stormwater drainage facilities.
f. Result in substantial adverse physical impacts associated with the provision of electric or natural gas service?			X		Minor extension of utility lines would be necessary to serve the proposed project. Existing utility lines are located along existing roadways and other developed areas, and the extension of lines would take place within areas already proposed for development as part of the project. No significant new impacts would result from utility extension.
g. Result in substantial adverse physical impacts associated with the provision of emergency services?			X		The project would incrementally increase demand for emergency services, but would not cause substantial adverse physical impacts as a result of providing adequate service.
h. Result in substantial adverse physical impacts associated with the provision of public school services?			X		The project would result in minor increases to student population; however, the increase would not require the construction/expansion of new unplanned school facilities. Established case law, *Goleta Union School District v. The Regents of the University of California* (36 Cal-App. 4th 1121, 1995), indicates that school overcrowding, standing alone, is not a change in the physical conditions, and cannot be treated as an impact on the environment.
i. Result in substantial adverse physical impacts associated with the provision of park and recreation services?			X		The project will result in increased demand for park and recreation services, but meeting this demand will not result in any substantial physical impacts.
7. **TRANSPORTATION** - Would the project:					

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
a. Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) – measuring transportation impacts individually or cumulatively, using a vehicles miles traveled standard established by the County?			X		The project is the development of a single family residence the number of trips generated by the project would meet the criteria for a small project and is below the thresholds established by Sacramento County Department of Transportation; therefore, project impacts individually or cumulatively are less than significant.
b. Result in a substantial adverse impact to access and/or circulation?			X		The project will be required to comply with applicable access and circulation requirements of the County Improvement Standards and the Uniform Fire Code. Upon compliance, impacts are less than significant.
c. Result in a substantial adverse impact to public safety on area roadways?			X		The project will be required to comply with applicable access and circulation requirements of the County Improvement Standards and the Uniform Fire Code. Upon compliance, impacts are less than significant.
d. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			X		The project does not conflict with alternative transportation policies of the Sacramento County General Plan, with the Sacramento Regional Transit Master Plan, or other adopted policies, plans or programs supporting alternative transportation.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
8. **AIR QUALITY** - Would the project:					
a. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?			X		The project does not exceed the screening thresholds established by the Sacramento Metropolitan Air Quality Management District and will not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment. The project is within the screening criteria for construction related impacts related to air quality. The project site is less than 35 acres, and does not involve buildings more than 4 stories tall; demolition activities; significant trenching activities; an unusually compact construction schedule; cut-and-fill operations; or, import or export of soil materials requiring a considerable amount of haul truck activity. Basic Construction Emissions Control Practices have also been included as a mitigation measure with which the project must comply. The project meets the Sacramento Metropolitan Air Quality Management District's screening criteria for PM_{10} and $PM_{2.5}$ and Ozone precursors.
b. Expose sensitive receptors to pollutant concentrations in excess of standards?			X		There are no sensitive receptors (i.e., schools, nursing homes, hospitals, daycare centers, etc.) adjacent to the project site.
c. Create objectionable odors affecting a substantial number of people?			X		The project will not generate objectionable odors.
9. **NOISE -** Would the project:					
a. Result in generation of a temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established by the local general plan, noise ordinance or applicable standards of other agencies?			X		The project is not in the vicinity of any uses that generate substantial noise, nor will the completed project generate substantial noise. The project will not result in exposure of persons to, or generation of, noise levels in excess of applicable standards.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
b. Result in a substantial temporary increase in ambient noise levels in the project vicinity?			X		Project construction will result in a temporary increase in ambient noise levels in the project vicinity. This impact is less than significant due to the temporary nature of the these activities, limits on the duration of noise, and evening and nighttime restrictions imposed by the County Noise Ordinance (Chapter 6.68 of the County Code).
c. Generate excessive groundborne vibration or groundborne noise levels.			X		The project will involve the use of pile driving or other methods that would produce excessive groundborne vibration or noise levels at the property boundary. Please refer to the noise discussion section above.
10. **HYDROLOGY AND WATER QUALITY** - Would the project:					
a. Substantially deplete groundwater supplies or substantially interfere with groundwater recharge?			X		The project will incrementally add to groundwater consumption; however, the singular and cumulative impacts of the proposed project upon the groundwater decline in the project area are minor.
b. Substantially alter the existing drainage pattern of the project area and/or increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?			X		The project does not involve any modifications that would substantially alter the existing drainage pattern and or/increase the rate or amount of surface runoff in a manner that would lead to flooding. Compliance with applicable requirements of the Sacramento County Floodplain Management Ordinance, Sacramento County Water Agency Code, and Sacramento County Improvement Standards will ensure that impacts are less than significant.
c. Develop within a 100-year floodplain as mapped on a federal Flood Insurance Rate Map or within a local flood hazard area?			X		The project is within a 100-year floodplain as mapped on a federal Flood Insurance Rate Map (Flood Zone AE). The Sacramento County Floodplain Management Ordinance, Sacramento County Water Agency Code, and Sacramento County Improvement Standards require that the project be located outside or above the floodplain, and will ensure that impacts are less than significant. Refer to the Hydrology discussion in the Environmental Effects section above.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
d. Place structures that would impede or redirect flood flows within a 100-year floodplain?			X		Although the project is within a 100-year floodplain, compliance with the Sacramento County Floodplain Management Ordinance, Sacramento County Water Agency Code, and Sacramento County Improvement Standards will ensure that impacts are less than significant.
e. Develop in an area that is subject to 200 year urban levels of flood protection (ULOP)?			X		The project would construct a single-family home on a site zoned for a single-family residence. The project site is located in an area subject to 200-year urban levels of flood protection (ULOP). Refer to the Hydrology discussion in the Environmental Effects section above.
f. Expose people or structures to a substantial risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X		The project site is located between the Sacramento River and the levee. The site is located within the 100-year and 200-year flood plain. Compliance with the Sacramento County Floodplain Management Ordinance, Sacramento County Water Agency Code, and Sacramento County Improvement Standards would ensure that the project is constructed above 100-year flood plain line. Failure of the adjacent levee would not increase the risk of flooding on the project site. Therefore, the project would have a less than significant impact. Refer to the Hydrology discussion in the Environmental Effects section above.
g. Create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems?			X		The project construct a single family home, which would alter the drainage of the site. Adequate on- and/or off-site drainage improvements would be required pursuant to the Sacramento County Floodplain Management Ordinance and Improvement Standards. Compliance with the Sacramento County Floodplain Management Ordinance and Improvement Standards would ensure that the project would have a less than significant impact.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
h. Create substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality?			X		Compliance with the Stormwater Ordinance and Land Grading and Erosion Control Ordinance (Chapters 15.12 and 14.44 of the County Code respectively) will ensure that the project will not create substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality. All underground storage tanks are subject to federal and State regulations pertaining to operating standards, leak reporting requirements, and corrective action requirements. The County Environmental Management Department enforces these regulations. Existing regulations will ensure that impacts are less than significant. Sacramento County Code Chapters 6.28 and 6.32 provide rules and regulations for water wells and septic systems that are designed to protect water quality. The Environmental Health Division of the County Environmental Management Department has permit approval authority for any new water wells and septic systems on the site. Compliance with existing regulations will ensure that impacts are less than significant.
11. **GEOLOGY AND SOILS** - Would the project:					
a. Directly or indirectly cause potential substantial adverse effects, including risk of loss, injury or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?			X		Sacramento County is not within an Alquist-Priolo Earthquake Fault Zone. Although there are no known active earthquake faults in the project area, the site could be subject to some ground shaking from regional faults. The Uniform Building Code contains applicable construction regulations for earthquake safety that will ensure less than significant impacts.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
b. Result in substantial soil erosion, siltation or loss of topsoil?			X		Compliance with the County's Land Grading and Erosion Control Ordinance will reduce the amount of construction site erosion and minimize water quality degradation by providing stabilization and protection of disturbed areas, and by controlling the runoff of sediment and other pollutants during the course of construction. Refer to the Geology and Soils discussion in the Environmental Effects section above. Mitigation has been included to ensure that impacts are less than significant.
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, soil expansion, liquefaction or collapse?			X		Pursuant to Title 16 of the Sacramento County Code and the Uniform Building Code, a soils report will be required prior to building construction. If the soils report indicates than soils may be unstable for building construction then site-specific measures (e.g., special engineering design or soil replacement) must be incorporated to ensure that soil conditions will be satisfactory for the proposed construction.
d. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available?			X		All septic systems must comply with the requirements of the County Environmental Management Department, Environmental Health Division, as set forth in Chapter 6.32 of the County Code. Compliance with County standards will ensure impacts are less than significant.
e. Result in a substantial loss of an important mineral resource?			X		The project is not located within an Aggregate Resource Area as identified by the Sacramento County General Plan Land Use Diagram, nor are any important mineral resources known to be located on the project site.
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X		No known paleontological resources (e.g. fossil remains) or sites occur at the project location.
12. **BIOLOGICAL RESOURCES** - Would the project:					

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
a. Have a substantial adverse effect on any special status species, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community?			X		The project site contains suitable habitat for Swainson's Hawk, other nesting raptors, and migratory birds. Mitigation is included to reduce impacts to less than significant levels. Refer to the Biological Resources discussion in the Environmental Effects section above.
b. Have a substantial adverse effect on riparian habitat or other sensitive natural communities?			X		The project site contains 0.92 acres of riparian habitat. Mitigation is included to reduce impacts to less than significant levels. Refer to the Biological Resources discussion in the Environmental Effects section above.
c. Have a substantial adverse effect on streams, wetlands, or other surface waters that are protected by federal, state, or local regulations and policies?			X		The Sacramento River is located adjacent to the project site. However, the project will not impact the Sacramento River. Refer to the Biological Resources discussion in the Environmental Effects section above.
d. Have a substantial adverse effect on the movement of any native resident or migratory fish or wildlife species?			X		Resident and/or migratory wildlife may be displaced by project construction; however, impacts are not anticipated to result in significant, long-term effects upon the movement of resident or migratory fish or wildlife species, and no major wildlife corridors would be affected.
e. Adversely affect or result in the removal of native or landmark trees?			X		Native and/or landmark trees occur on the project site and a total of four valley oaks will be removed due to conflict with the proposed home building footprint. Four more valley oaks will be affected by encroachment of the proposed driveway. Mitigation is included to ensure impacts are less than significant. Refer to the Biological Resources discussion in the Environmental Effects section above.
f. Conflict with any local policies or ordinances protecting biological resources?			X		The project is consistent with local policies/ordinances protecting biological resources.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
g. Conflict with the provisions of an adopted Habitat Conservation Plan or other approved local, regional, state or federal plan for the conservation of habitat?			X		There are no known conflicts with any approved plan for the conservation of habitat. Refer to the Biological Resources discussion in the Environmental Effects section above.
13. **CULTURAL RESOURCES -** Would the project:					
a. Cause a substantial adverse change in the significance of a historical resource?			X		No historical resources would be affected by the proposed project.
b. Have a substantial adverse effect on an archaeological resource?		X			No known archaeological resources occur on-site. A Cultural Resources Survey was prepared and indicated there is potential for subsurface resources. Refer to the Cultural Resources Section above.
c. Disturb any human remains, including those interred outside of formal cemeteries?		X			No known human remains exist on the project site. Nonetheless, mitigation has been recommended to ensure appropriate treatment should remains be uncovered during project implementation.
14. **TRIBAL CULTURAL RESOURCES -** Would the project:					
a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?			X		The Sacramento River TCL was previously identified in the Cultural Resources Inventory Report prepared by ECORP Consulting, Inc., evaluated as eligible under NRHP and CRHR, and therefore is a Historical Resource under CEQA and a Historic Property under Section 106 of the NHPA. Tribal consultation would determine whether this resource retains integrity within the current Project Area. Notification pursuant to Public Resources Code 21080.3.1(b) was provided to the tribes and request for consultation was not received.

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15. **HAZARDS AND HAZARDOUS MATERIALS** - Would the project:					
a. Create a substantial hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X		The project does not involve the transport, use, and/or disposal of hazardous material.
b. Expose the public or the environment to a substantial hazard through reasonably foreseeable upset conditions involving the release of hazardous materials?			X		The project does not involve the transport, use, and/or disposal of hazardous material.
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?			X		The project does not involve the use or handling of hazardous material.
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, resulting in a substantial hazard to the public or the environment?				X	The project is not located on a known hazardous materials site.
e. Impair implementation of or physically interfere with an adopted emergency response or emergency evacuation plan?			X		The project would not interfere with any known emergency response or evacuation plan.
f. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to or intermixed with urbanized areas?			X		The project is within an urbanizing area of the unincorporated County and is located within the Local Responsibility Area according to the CalFire Fire Hazard Severity Zones Map (2007). Compliance with local Fire District standards and requirements ensures impacts are less than significant.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
16. ENERGY – Would the project:					
a. Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction?			X		While the project will introduce one new home and increase energy consumption, compliance with Title 24, Green Building Code, will ensure that all project energy efficiency requirements are net resulting in less than significant impacts.
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X		The project will comply with Title 24, Green Building Code, for all project efficiency requirements.
17. GREENHOUSE GAS EMISSIONS – Would the project:					
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X		The project will fully implement the SMAQMD Tier 1 BMPs. The project will result that fewer than 36 dwelling units, which is the associated screening level of dwelling units, indicating that the project would have a less than significant impact on GHG emissions. Refer to the Greenhouse Gas Emissions discussion in the Environmental Effects section above.
b. Conflict with an applicable plan, policy or regulation for the purpose of reducing the emission of greenhouse gases?			X		The project is consistent with County policies adopted for the purpose or reducing the emission of greenhouse gases.

SUPPLEMENTAL INFORMATION

LAND USE CONSISTENCY	Current Land Use Designation	Consistent	Not Consistent	Comments
General Plan	Recreation	X		Residential
Community Plan	Not in a Community Plan Land Use Area	X		

Land Use Zone	SPA	X		

INITIAL STUDY PREPARERS

Environmental Coordinator:	Julie Newton
Assistant Environmental Analysis:	John Q. Barnard IV
Office Manager:	Belinda Wekesa-Batts
Administrative Support:	Justin Maulit