Notice of Completion

SEE NOTE BELOW

Control Number # PLNP2017-00079 **SCH # 2018072056**

Mail to: PO Box 3044, Sacramento CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth street, Sacramento CA 95814

Project Title: Squirrel Monkey Haven

Lead Agency: Sacramento County
Mailing Address: 827 7th Street, Rm 225
City: Sacramento Zip: 95814

Contact Person: Tim Hawkins
Phone: (916) 874-6141
County: Sacramento

Project Location

County: Sacramento City/Nearest Community: Galt
Cross Streets: Colony Rd Zip Code: 95632
Lat. / Long.: 38° 19′ 34.22″ N/ 121° 14′ 02.60″ W Total Acres: 5
Assessor's Parcel No.: 138-0090-069 Section: S32 Twp: T6N Range: R7E Base: _____
Within 2 Miles: State Highway # _____ Waterways: _____
Airports: _____ Railways: _____ Schools: _____

Governor's Office of Planning & Research
JUN 03 2019
STATE CLEARINGHOUSE

Document Type

CEQA: ☐ NOP ☐ Draft EIR
☐ Early Cons ☐ Supplement/Subsequent EIR
☐ Neg Dec (Prior SCH No.) _____
☐ Mit Neg Dec Other: _____

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

OTHER: ☐ Joint Document ☒ Final Document ☐ Other: _____

Local Action Type

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☒ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (subdivision, etc.) ☐ Other: _____

Development Type

☐ Residential: Units _____ Acres _____
☐ Office: Sq. Ft. _____ Acres _____ Employees _____
☐ Commercial: Sq. Ft. _____ Acres _____ Employees _____
☐ Industrial: Sq. Ft. _____ Acres _____ Employees _____
☐ Education: _____
☐ Recreational: _____

☐ Water Facilities: Type:_____ MGD:_____
☐ Transportation: Type:_____
☐ Mining: Mineral:_____
☐ Power: Type:_____ MW:_____
☐ Waste Treatment: Type:_____ MGD:_____
☐ Hazardous Waste: Type:_____
☒ Other: kennel/sanctuary facility

Project Issues Discussed in Document

☒ Aesthetic/Visual ☐ Floodplain/Flooding ☐ Schools/Universities ☒ Water Quality
☐ Agricultural Land ☐ Forest Land/Fire Hazard ☒ Septic Systems ☒ Water Supply/Groundwater
☒ Air Quality ☐ Geologic/Seismic ☐ Sewer Capacity ☒ Wetland/Riparian
☐ Archeological/Historical ☐ Minerals ☐ Soil Erosion/Compaction/Grading ☒ Wildlife
☐ Coastal Zone ☒ Noise ☒ Solid Waste ☐ Growth Inducing
☒ Drainage/Absorption ☐ Population/Housing Balance ☐ Toxic Hazardous ☒ Land Use
☐ Economic/Jobs ☐ Public Services/Facilities ☒ Traffic/Circulation ☒ Cumulative Effects
☐ Fiscal ☐ Recreation/Parks ☐ Vegetation ☐ Other: _____

Present Land Use/Zoning/General Plan Use

A-5, Agricultural

Project Description

A Conditional Use Permit (UPZ) to allow for the construction of an indoor-outdoor kennel to house up to a maximum of 55 squirrel monkeys on a property with a zoning designation of General Agricultural (A-5). The kennel includes a 2,700 square foot steel building with 18 attached outdoor habitats ranging in size from 240 to 288 square feet (~7,800 total square feet). The kennel will be surrounded by a security fence and landscape screening.

NOTE: Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g., from a Notice of Preparation or previous draft document) please fill it in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

_ Air Resources Board
_ Boating & Waterways
_ California Highway Patrol
_ Caltrans District #_____
_ Caltrans Division of Aeronautics
_ Caltrans Planning (Headquarters)
_ California Waste Management Board
_ Coachella Valley Mountains Conservancy
_ Coastal Commission
_ Colorado River Board
_ Conservation, Department of
_ Corrections, Department of
_ Delta Protection Commission
_ Education, Department of
_ Energy Commission
X Fish & Game Region #2
_ Food & Agriculture, Department of
_ Forestry & Fire Protection
_ General Services, Department of
_ Health Services, Department of
_ Housing & Community Development
_ Integrated Waste Management Board
_ Native American Heritage Commission
_ Office of Emergency Services
_ Office of Historic Preservation
_ Office of Public School Construction
_ Parks & Recreation
_ Pesticide Regulation, Department of
_ Public Utilities Commission
_ Reclamation Board
X Regional WQCB # 5S (Central Valley)
_ Resources Agency
_ S.F. Bay Conservation & Development Commission
_ San Gabriel & Lower L.A. Rivers and Mtns Conservancy
_ San Joaquin River Conservancy
_ Santa Monica Mountains Conservancy
_ State Lands Commission
_ SWRCB: Clean Water Grants
_ SWRCB: Water Quality
_ SWRCB: Water Rights
_ Tahoe Regional Planning Agency
_ Toxic Substances Control, Department of
_ Water Resources

_ Other _____
_ Other _____

Local Public Review Period (to be filled in by lead agency)

Starting Date _____ Ending Date _____

Lead Agency (Complete if applicable)

Consulting Firm: _____
Address: _____
City/State/Zip: _____
Contact: _____
Phone: (_____) _____

_____

Applicant: _____
Address: _____
City/State/Zip: _____
Phone: (_____) _____

_____

Signature of Lead Agency Representative: _____ **Date:** _____

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

FINAL ENVIRONMENTAL IMPACT REPORT

SQUIRREL MONKEY HAVEN

Control Number: PLNP2017-00079
State Clearinghouse Number: 2018072056
Date: June 2019

COUNTY OF SACRAMENTO
OFFICE OF PLANNING AND ENVIRONMENTAL REVIEW
827 7TH STREET, ROOM 225
SACRAMENTO, CALIFORNIA 95814

Board Of Supervisors

1st District: Phil Serna

2nd District: Patrick Kennedy

3rd District: Susan Peters

4th District: Sue Frost

5th District: Don Nottoli

County Executive

Nav Gill, County Executive

Prepared By

County of Sacramento
Office of Planning and Environmental Review

FINAL ENVIRONMENTAL IMPACT REPORT

SQUIRREL MONKEY HAVEN

Control Number: PLNP2017-00079
State Clearinghouse Number: 2018072056

This Environmental Impact Report has been prepared pursuant to the California Environmental Quality Act of 1970 (Public Resources Code Division 13). An Environmental Impact Report is an informational document which, when this Office requires its preparation shall be considered by every public agency prior to its approval or disapproval of a project. The purpose of an Environmental Impact Report is to provide public agencies with detailed information about the effect that a proposed project is likely to have on the environment; to list ways in which any adverse effects of such a project might be minimized; and to suggest alternatives to such a project.

Prepared by the
COUNTY OF SACRAMENTO
OFFICE OF PLANNING AND ENVIRONMENTAL REVIEW
827 7TH STREET, ROOM 225
SACRAMENTO, CALIFORNIA 95814
www.PER.saccounty.net

Office of Planning and Environmental Review
Leighann Moffitt, Director

County Executive
Navdeep S. Gill

May 31, 2019

TO: All Interested Parties

SUBJECT: FINAL ENVIRONMENTAL IMPACT REPORT FOR SQUIRREL MONKEY HAVEN (CONTROL NUMBER: PLNP2017-00079)

The subject Final Environmental Impact Report (DEIR) is attached for your review and comment. The FEIR can also be reviewed at:
https://planningdocuments.saccounty.net/default.aspx?ControlNum=PLNP2017-00079

The Sacramento County Board of Supervisors will consider the FEIR and the proposed project in a public hearing to be held at 700 H Street, Room 1450 (Board Chambers). The hearing is scheduled for July 23, 2019. A notice of the date and time of the public hearing will be provided to all property owners within 500 feet of the Project site by the hearing body authorized to conduct the public hearing for the proposed project. Interested individuals not within this radius should contact the Clerk of the Board at 874-545 to be placed on the hearing notice mailing list. Interested individuals may also check the materials for upcoming hearings on the Sacramento County Board of Supervisors website http://www.bos.saccounty.net/Pages/default.aspx

For questions about the project, please contact Wendy Hartman of this office at (916) 875-0527 or hartmanw@sacccounty.net.

Sincerely,

[Original Signature on File]

Tim Hawkins
Environmental Coordinator

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PREFACE

This final environmental impact report (FEIR) has been prepared by Sacramento County (County), as lead agency, in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (CCR Section 15132). This FEIR contains responses to comments received on the draft environmental impact report (DEIR) on the Squirrel Monkey Haven Project. The Sacramento County Board of Supervisors will use the FEIR as one of the informational sources to determine whether to approve or deny the project.

A Notice of Preparation for the Project was published on July 23, 2018. Along with a Notice of Completion, the DEIR was released to the Governor's Office of Planning and Research to begin the 45-day public review period (Public Resources Code, Section 21161) on March 27, 2019. The comment period closed on May 10, 2019.

Where changes to the text of the EIR were made to reflect the revised proposal or are required as a result of the comments received, those changes are shown with **bold underline for text added** and ~~strikethrough for text deleted~~ within the pertinent chapter(s). Corrections to errors in pagination or format, spelling corrections, grammatical corrections, and other such editorial changes that are unrelated to the substantive content of the EIR are not highlighted. It should be noted that the revisions do not change the intent or content of the analysis or effectiveness of mitigation measures presented in the DEIR.

The FEIR and all appended materials are available electronically at on Sacramento County's website. Visit https://planningdocuments.saccounty.net/; within the "Application No." search field type PLNP2017-00079 and click "search."

EXECUTIVE SUMMARY AND MITIGATION MEASURES

This environmental impact report (EIR) evaluates the project's effects on environmental resources, both singularly and in a cumulative context, to examine alternatives to the project as proposed, and identify mitigation measures to reduce or avoid potentially significant effects. This document has been prepared in compliance with the California Environmental Quality Act (CEQA; Sections 21000-21189 of the Public Resources Code [PRC]) and the State CEQA Guidelines (Title 14, Sections 15000-15387 of the California Code of Regulations).

SUMMARY OF THE PROPOSED PROJECT

The subject of this Environmental Impact Report (EIR) is a project known as Squirrel Monkey Haven. The project site is located at 11859 North Valensin Road on the east side of Colony Road in the Southeast Area community of unincorporated Sacramento County.

The subject project is a Conditional Use Permit (UPZ) to allow for the construction of an indoor-outdoor kennel to house up to a maximum of 55 squirrel monkeys on a property with a zoning designation of A-5 (Agriculture – 5-acre minimum). The kennel includes a 2,700 square foot steel building with 18 attached outdoor habitats ranging in size from 240 to 288 square feet (~7,800 total square feet). The kennel will be surrounded by a security fence and landscape screening. The project is described in further detail in Chapter 1, "Project Description", of this EIR.

Lead and Responsible Agencies

The lead agency is the public agency with the principal responsibility for carrying out or disapproving a project. The lead agency is also responsible for scoping the analysis, preparing the EIR, and responding to comments received on the Draft EIR. Prior to making a decision to approve a project, the lead agency is required to certify that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the EIR, and that the EIR reflects its independent judgment. Sacramento County is the lead agency for the evaluation of the Squirrel Monkey Haven project.

Responsible agencies are public agencies that have discretionary approval power over the project. The following agencies are anticipated to have approval authority over some aspect of the project: California Department of Fish and Wildlife, Sacramento County Department of Animal Care and Regulation, and the United States Department of Agriculture.

FEATURES OF THE DRAFT EIR

Purpose of the Draft EIR

In accordance with CEQA, public agencies must prepare an EIR to evaluate the potential consequences of development and operation of projects that could significantly affect the environment. The EIR process is specifically designed to objectively evaluate and disclose potentially significant direct, indirect, and cumulative impacts of a project; to identify alternatives that reduce or eliminate a project's significant effects; and to identify feasible measures that mitigate significant environmental effects. In addition, CEQA requires that an EIR identify those adverse impacts that remain significant after mitigation. The purpose of an EIR is not to recommend approval or denial of a project, but to provide decision-makers, public agencies, and the general public with information about the project.

Scope of the Draft EIR

Pursuant to CEQA and the State CEQA Guidelines, a lead agency shall focus the EIR's discussion on significant environmental effects and may limit discussion of other effects to brief explanations about why they are not significant (PRC Section 21002.1, State CEQA Guidelines Section 15143). Furthermore, the EIR must also discuss the manner in which significant impacts can be feasibly mitigated or avoided.

ISSUES ADDRESSED IN THIS EIR

This EIR addresses the following technical issue areas:

- Land Use
- Hydrology and Water Quality
- Public Services
- Traffic & Circulation
- Air Quality
- Noise
- Cultural Resources
- Greenhouse Gases and Climate Change
- Biological Resources

This report has identified potential project-related impacts associated with biological resources and cultural resources, which could be reduced to a less than significant level through inclusion of recommended mitigation measures.

There were no project related impacts determined to be significant and unavoidable.

Impacts associated with land use, hydrology and water quality, public services, traffic and circulation, noise, air quality, and greenhouse gases and climate change **are considered less than significant**.

Issues not discussed within this EIR

Aesthetics

The proposed kennel facility is similar in size and style to other common agricultural buildings, and will be screened from view through landscaping appropriate for the area. Impacts related to aesthetics are considered ***less than significant.***

Agricultural Resources

The subject property is not considered prime farmland, farmland of statwide importance, unique farmland, farmland of local importance, or grazing land pursuant to the California Department of Conservation's farmland map. The site is not subject to a Williamson Act contract. Impacts to agricultural resources are considered ***less than significant.***

Geology and Soils

The project site is not within an Alquist-Priolo Earthquake Fault Zone, will not result in substantial soil erosion or loss of topsoil, and is not located .on a geologic soil unit that is unstable or will become unstable as a result of the project. The project will not result in the loss of availability of an important mineral resource. Impacts related to geology and soils is considered ***less than significant.***

Hazards and Hazardous Materials

The proposed project does not involve the use, transport, or disposal of hazardous materials other than common cleaning products. However, public comments have been received asserting that the urine and fecal waste from the monkeys is bio-hazardous waste. This issue is discussed further in the ***Hydrology, Drainage, and Water Quality*** and ***Public Services (Solid Waste)*** chapters of this EIR. Impacts associated with the use of hazardous materials is considered ***less than significant.***

Summary of Impacts and Mitigation Measures

The following environmental impact and mitigation summary table (*Table ES-1: Executive Summary of Impacts and Mitigation on page ES-4*) briefly describes the project impacts and the mitigation measures recommended to eliminate or reduce the impacts. The residual impact after mitigation is also identified. Detailed discussions of each of the identified impacts and mitigation measures, including pertinent support data, can be found in the specific topic sections in the remainder of this report.

Table ES-1: Executive Summary of Impacts and Mitigation

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
LAND USE			
CONSISTENCY WITH GENERAL PLAN, SOUTHEAST AREA COMMUNITY PLAN, AND COUNTY ZONING CODE The proposed project is consistent with the policies of the Sacramento County General Plan, Southeast Area Community Plan, and upon approval of a Use Permit would be consistent with Sacramento County Zoning Code.	LS	None Required	LS
HYDROLOGY AND WATER QUALITY			
100-YEAR FLOODPLAIN The project is located within a FEMA "Zone X" area and will not place structures in a FEMA designated floodplain or flood hazard area. County Department of Water Resources placed a condition of approval upon the project, that minimum pad/floor elevations would be required pursuant to the Sacramento County Floodplain Management Ordinance.	LS	None Required	LS

[1] PS = Potentially Significant S = Significant SU = Significant and Unavoidable LS = Less Than Significant

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Compliance with the Floodplain Management Ordinance, Sacramento County Water Agency Code, and the Sacramento County Improvement Standards will minimize any off-site impacts due to drainage from the project site.			
CREATE OR CONTRIBUTE RUNOFF WHICH WOULD EXCEED THE CAPACITY OF EXISITING OR PLANNED STORMWATER DRAINAGE SYSTEMS OR PROVIDE SUBSTANTIAL ADDITIONAL SOURCES OF POLLUTED RUNOFF Indoor housing would be sanitized weekly. This involves stripping the absorbent bedding (wood shavings) with feces and urine residues out of the cage, rinsing, applying a sanitizer, and then rinsing again. The indoor housing would have a central drain in the cement floor to collect rinse water during cleaning. The rinse water would drain into a dedicated septic system that would be designed by RC Berti Construction of Wilton with input, permitting, and inspection by Sacramento County Environmental Management Division.	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
WATER QUALITY The project involves minimal grading of less than 1 acre and less than 350 cubic yards of material and will not need to secure a grading permit. The proposed new septic system appears to be able to meet all setback requirements.	LS	None Required	LS
PUBLIC SERVICES			
EFFECTS TO WATER SUPPLY The applicant is proposing to use the existing private well on the property for the proposed facility's operations. The proposed facility plan estimates 41,000 gallons of water will be used annually (112 gallons per day) for facility needs including monkey drinking water, cleaning, and landscaping. On average, each person in a household uses about 100 gallons of water a day. Sacramento County Environmental Management Department (EMD) has reviewed the proposed project and concluded that the existing well is adequate to serve the existing home and the proposed monkey sanctuary. EMD also evaluated the location of the facility from adjacent well sites and indicated that the proposed facility met all required setbacks.	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
WASTEWATER TREATMENT The proposed septic system will be constructed to County standards and is subject to inspection by EMD. EMD reviewed the proposed location and determined that it meets setbacks from the existing well and from those on the neighboring properties.	LS	None Required	LS
EFFECTS TO SOLID WASTE FACILITIES The expected fecal output from the 51 monkeys is 0.8 pounds per day (24 pounds per month). This increase in solid waste would not fill a substantial proportion of the available permitted capacity at Keifer Landfill and would not result in the need to expand or construct new landfill facilities. According to correspondence from the Global Federation of Animal Sanctuaries and UC Davis, the State of California does not consider primate waste biohazardous and does not require it to be handled as biohazardous medical waste (refer to Appendix L and M). Waste can be handled and disposed as regular waste by typical commercial waste management contractors.	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
POLICE SERVICES The Sacramento County Sheriff's Department Subdivision and Project Review representative conducted a review and assessment of the project planning documents associated with the project. The Sheriff's Department provided conditions relating to address numbers, alarm systems, gate permits, and to provide immediate notification in the event of a missing or escaped monkey. Those conditions have been incorporated into the project	LS	None Required	LS
ANIMAL CONTROL SERVICES The proposed project will require the applicant to obtain a Wild Animal Permit from the Sacramento County Department of Animal Control and Regulation. Compliance with this permit will ensure the safe operation of the facility. Non-compliance with any permit conditions will result in revocation of the permit and closure of the facility	LS	None Required	LS
TRAFFIC & CIRCULATION			
ACCESS & PARKING There are no specific parking requirements for kennels in the County Zoning Code; however, Sacramento County Planning and	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Environmental Review staff reviewed the proposed project and have determined that because the amount of traffic to the site is expected to be minor, due to the nature of the proposed use, the existing driveway and paved areas adjacent to the existing home and barn are adequate to serve the proposed facility. The Building Department will require that an ADA compliant parking space be designated along with an accessible path of travel from the parking area to the kennel be provided. The Building Department requirements will be included as part of the project conditions if the project is approved. Land Division and Site Improvement Review (LDSIR) staff reviewed the project and had no comments. DOT Staff reviewed the project and provided advisory conditions if additional driveway or gates were proposed in the future.			
TRAFFIC GENERATION The project will generate 10 daily trips. In addition, one additional truck trip per week will be generated to accommodate the waste disposal for the facility.	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
AIR QUALITY			
RESULT IN SHORT-TERM, CONSTRUCTION-GENERATED EMISSIONS OF ROG, NO_X, PM_{10}, AND $PM_{2.5}$ THAT EXCEED SMAQMD-RECOMMENDED THRESHOLDS Construction-generated emissions of NO_X would not exceed the SMAQMD threshold of significance. Because construction-generated emissions of PM_{10} and $PM_{2.5}$ would not exceed the applicable adopted mass emissions thresholds adopted by SMAQMD, construction-generated emissions of PM_{10} and $PM_{2.5}$ would not contribute to a localized exceedance of the CAAQS and NAAQS for of PM_{10} and $PM_{2.5}$ or contribute to the nonattainment status of the SVAB with respect to the CAAQS for PM_{10} and the NAAQS for $PM_{2.5}$.	LS	None Required	LS
RESULT IN LONG-TERM, OPERATIONAL EMISSIONS OF ROG, NO_X, PM_{10} AND $PM_{2.5}$ THAT EXCEED SMAQMD-RECOMMENDED THRESHOLDS The operational emissions would not exceed SMAQMD-adopted daily or annual mass emission thresholds for ROG (precursor to ozone), NOX, and PM10 and PM2.5.	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Therefore, operational emissions of criteria air pollutants and precursors would not contribute considerably to the nonattainment status of the SVAB with respect to the CAAQS and NAAQS for ozone, the CAAQS for PM10, or the NAAQS for PM2.5. Moreover, operational emissions of PM10 and PM2.5 would not contribute to localized concentrations of PM10 and/or PM2.5 that would exceed or contribute to an exceedance of the CAAQS or NAAQS.			
RESULT IN LONG-TERM, OPERATIONAL MOBILE-SOURCE CO CONCENTRATIONS THAT EXCEED AIR QUALITY STANDARDS DUE TO INCREASED TRAFFIC Ten daily trips would not result in, or substantially contribute to, concentrations that exceed the 1-hour or 8-hour CAAQS and NAAQS for CO.	LS	None Required	LS
EXPOSE SENSITIVE RECEPTORS TO TACS Project-related construction would not expose nearby sensitive receptors to an incremental increase in cancer risk that exceeds 10 in 1 million or a hazard index greater than 1.0, the project would not introduce new stationary sources of TACs, and the project would not be developed in a location where future residents	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
would be exposed to relatively high concentrations of TACs from offsite emission sources.			
EXPOSE SENSITIVE RECEPTORS TO ODORS The proposed squirrel monkey sanctuary with 51 monkeys will produce significantly less waste than a single adult horse and about the same amount of urine as two adult humans and as much feces as three adult humans (at maximum capacity the change in waste output is negligible). The applicant has developed an odor control program to ensure that odors are minimized and will not result in a public nuisance.	LS	None Required	LS
NOISE			
RESULT IN SUBSTANTIAL CONSTRUCTION-GENERATED NOISE Noise-generating construction activity would occur between 7:00 a.m. and 7:00 p.m., Monday through Friday. The Sacramento County Code (Section 6.68.090) exempts construction-related noise, provided that construction activity does not occur between 8:00 p.m. and 6:00 a.m. on weekdays.	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Additionally, no pile driving or blasting would occur during construction. Therefore, construction would not result in the exposure of persons to, or generation of, noise levels in excess of applicable standards.			
RESULT IN CONSTRUCTION-GENERATED GROUND VIBRATION AT NEARBY SENSITIVE LAND USE The maximum ground vibration level generated by a large dozer is 0.089 in/sec PPV and 87 Vdb at 25 feet. The use of a large dozer would not exceed the Caltrans recommended level of 0.2 in/sec PPV with respect to structural damage, as the noted vibration level at 25 feet is substantially below 0.2 in/sec PPV. Further, multiple dozers are generally not used in close proximity for safety reasons. No structures are located within 25 feet of the project site boundary; therefore, the exposure at the closest buildings from a large dozer would be less than the Caltrans recommended level of 0.2 in/sec PPV. With respect to human disturbance, the use of a large dozer would exceed the Federal Transportation Agency's maximum acceptable level of 80 VdB within 40 feet of dozing activity. The existing structure nearest to where	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
construction would occur is beyond 40 feet from the project site boundary. Thus, construction activities performed by dozers would not occur within 40 feet of existing structures and therefore, vibration levels would not exceed the Federal Transportation Agency's maximum acceptable level for human annoyance of 80 VdB; therefore, construction that would occur on project site would not result in the exposure of any sensitive receptors or structure to excessive vibration levels.			
SUBSTANTIAL INCREASE (TEMPORARY, PERIODIC, OR PERMANENT) IN AMBIENT NOISE LEVELS The worst-case squirrel monkey sound exposure levels are predicted to be well below the recommended interior Sound Exposure Level (SEL) standard of 55 dB. No further consideration of noise mitigation measures would be warranted for the project relative to the recommended interior SEL standard of 55 dB. The low density rural character of the community generally provides a suitable environmental setting in which kennels would be compatible. According to the project	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
applicant, the kennel will be closed-up at night between 8 p.m. and 7 a.m. weekdays and 8 p.m. and 9 a.m. weekends and holidays; therefore limiting the potential for nighttime noise disturbance.			
CULTURAL RESOURCES			
ADVERSELY AFFECT IMPORTANT CULTURAL OR ARCHAEOLOGICAL RESOURCES The cultural resources inventory and evaluation did not identify any archaeological or tribal resources on the project site or within a quarter-mile of the project area (Dougherty 2017). The NCIC records search did not yield any resources, studies, or reports within a quarter-mile of the project area. The NAHC did not identify any sacred sites that could be affected by the project. Although no NRHP- or CRHR-listed or eligible resources, unique archaeological resources, tribal cultural resources, or traditional cultural properties have been documented in the project site, the project is located in a region where significant prehistoric and historic-era	PS	**Mitigation Measure CR-1:** If cultural resources are discovered during project-related construction activities, all ground disturbances within a minimum of 50 feet of the find shall be halted and the Planning and Environmental Review Division of the Community Development Department shall be immediately notified at (916) 874-7499. Work shall remain suspended until a County-identified, qualified professional archaeologist can evaluate the discovery. The archaeologist shall examine the resources, assess their significance, and recommend appropriate procedures to the lead agency to either further investigate or mitigate adverse impacts. If the find is determined to be a significant historical resource and the archaeological resource cannot be avoided, then applicable mitigation measures for	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
cultural resources have been recorded and there remains a potential that undocumented cultural resources could be unearthed or otherwise discovered during ground-disturbing and construction activities.		significant resources shall be completed (e.g., preservation in place, data recovery program pursuant to PRC Section 21083.2[i]). The project applicant shall be required to implement any mitigation deemed necessary for the protection of such cultural resources. During evaluation or mitigated treatment, ground disturbance and construction work could continue on other parts of the project site.	
DISTURB HUMAN REMAINS, INCLUDING THOSE INTERRED OUTSIDE OF FORMAL CEMETERIES There is no known evidence of potential for human burials on the project site. In the event human remains are discovered, the contractor would be required to comply with existing regulations. Pursuant to Section 7050.5 of the California Health and Safety Code, in case of the discovery of human remains, all work would stop and the County coroner would be immediately notified. If the remains are determined to be Native American, guidelines of the NAHC would be adhered to in the treatment and disposition of the remains, consistent with PRC Section 5097.98 and Sacramento County General Plan Policy CO-	PS	See Mitigation Measure CR-1 above	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
155.			
ADVERSELY AFFECT A UNIQUE PALEONTOLOGICAL RESOURCE OR SITE, OR A UNIQUE GEOLOGIC FEATURE According to the State CEQA Guidelines, a project is considered to have a significant impact on paleontological resources if it would directly or indirectly result in the destruction of a unique paleontological resource. No known paleontological resources or sites occur at the project location; therefore, Sacramento County General Plan Policy CO-161 (which requires appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources) would not apply.	~~PS~~ **LS**		LS
GREENHOUSE GASES & CLIMATE CHANGE			
GENERATION OF GREENHOUSE GAS EMISSIONS Based on the unique characteristics of the proposed monkey sanctuary; PER staff consulted with SMAQMD staff regarding the appropriate land use classification and variables to use in the model. In addition, the	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
defaults in CalEEMod were changed to reflect the emission anticipated for operation in 2019, and carbon intensity forecasts for the Sacramento Municipal Utility District (SMUD) based on SMUD's 2009 reporting year. The estimated GHG emissions for both facility construction and annual operation are significantly below SMAQMD's thresholds of 1,100 annual metric tons.			
BIOLOGICAL RESOURCES			
DISTURBANCE OF MIGRATORY BIRDS NESTS Implementation of the project could adversely affect common migratory birds through disturbance during the breeding season. Loss of active nests of common species would be inconsistent with the MBTA; however, the list of migratory birds includes many common species not otherwise protected under federal, state, or local laws. Loss of active nests of common species during project construction would not substantially reduce the abundance of any species, nor cause the abundance of any species to decline below self-sustaining levels. As such, potential adverse effects on common migratory birds would not alone	PS	**Mitigation Measure BR-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. 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.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
constitute a significant impact as defined by the significance criteria established for this EIR.			
DISTURBANCE OF NESTING BIRDS OF PREY Although there are no CNDDB records of these species on the project site or within 5 miles of the project site, suitable habitat for nesting birds of prey is present. If construction will occur during the nesting season of March 1 to September 15, preconstruction surveys will be required to ensure that construction activities do not agitate nesting birds of prey, potentially resulting in nest abandonment or other harm to nesting success (Mitigation Measure BR-1). If nests are found, the developer is required to contact CDFW 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.	PS	**Mitigation Measure BR-2:** 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 and ground nesting 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 CDFW 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	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		nest.	
DISTURBANCE OF SWAINSON'S HAWK NESTS Swainson's hawk is listed as threatened under CESA and has the potential to nest on the project site. Trees located around the project site provide potential habitat for Swainson's hawk. Reconnaissance surveys of the site did not detect the species or its nests and there are no records of these species nesting on the site; however, CNDDB records indicate that 19 sightings of Swainson's hawk have been sighted within 5 miles of the project site. Preconstruction surveys will be required to ensure that construction activities do not agitate nesting hawks, potentially resulting in nest abandonment or other harm to nesting success (Mitigation Measure BR-2).	PS	**Mitigation Measure BR-3:** If construction, grading, or project-related improvements are to commence between March 1 and September 15, a focused survey for Swainson's hawk nests on the site and within 1/2 mile of the site shall be conducted by a qualified biologist no later than 30 days prior to the start of construction work (including clearing and grubbing). 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.	LS
DISTURBANCE OF TRICOLORED BLACKBIRD NESTS Tricolored blackbird are listed as a CDFW Species of Special Concern. The ponded area of the property contains suitable habitat for the species and noise generated by construction activity could potentially agitate nesting tricolored blackbirds, potentially resulting in	PS	**Mitigation Measure BR-4:** If construction activity (which includes clearing, grubbing, or grading) is to commence within 300 feet of suitable nesting habitat between March 1 and July 31, a survey for nesting tricolored blackbirds shall be conducted by a qualified biologist. The survey shall cover all potential nesting habitat on-site and off-site up to a distance of 300 feet from the project	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
nest abandonment. Focused surveys for the species did not detect tricolored blackbirds or any special-status bird species. The biological report, dated September 17, 2018, found that while the pond contained the appropriate wetland vegetation, its small size (0.07 acres) would make it highly unlikely to support a tricolored blackbird breeding colony. CNDDB records indicate that there are 27, recorded occurrences within 5 miles of the project site. Ten of the records were concentrated along Twin Cities Road, approximately 1.5 to 3 miles to the southeast at habitats locations containing much larger continuous freshwater emergent wetlands than what is present at the site, making these larger bodies of water more preferable for the species. Further, a colony of red-winged blackbirds (*Agelaius phoeniceus)* was observed within the site's pond habitat on the May 1 reconnaissance survey. The birds were observed displaying mating behaviors including singing, wing displays, and general territoriality. The presence of the more aggressive and territorial red-winged blackbirds in a pond of this size suggests that colonization and nesting by tricolored blackbirds is highly unlikely; however, mitigation is included to reduce potential		boundary. The survey shall occur within 30 days of the date that construction will encroach within 300 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 tricolored blackbird were found during the pre-construction survey, no further mitigation would be required. If an active tricolored blackbird colony is found on-site or within 300 feet of the project site the project proponent shall do the following: 1. Consult with CDFW to determine if project activity will impact the tricolored blackbird colony(s). Implement all protective measures recommended by CDFW. Provide the Environmental Coordinator with written evidence of the consultation or a contact name and number from CDFW.	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
impacts to nesting tricolored blackbirds (Mitigation Measure BR-3).			
LOSS OF SPECIAL-STATUS VERNAL POOL INVERTEBRATES Vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardi*) are both federally protected species. Biological surveys for the species were conducted after members of the public voiced concern that the pond could potentially support vernal pool invertebrates and that the project could impact them. The biological report, dated May 7, 2018, found the pond does not provide suitable habitat for either species. The amount of perennial freshwater emergent vegetation present in the pond implies that the pond is likely perennially-inundated, thus providing poor habitat for vernal pool invertebrates. Additionally, the presence of aquatic predators (American bullfrogs and the stocking of the pond with mosquito fish) make it highly unlikely the pond could support vernal pool invertebrates.	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
LOSS OF CALIFORNIA TIGER SALAMANDER AND ITS HABITAT California tiger salamander (*Ambystoma californiense*) are listed as a federally endangered species. The nearest documented occurrence is 4.4 miles northeast of the project site. Biological surveys for the species were conducted after members of the public and a biologist hired by a neighbor to the project site voiced concern that the pond and surrounding upland area was suitable habitat for the species. The biological report by Bargus Environmental, dated May 7, 2018, concluded that the study area does not provide suitable habitat for the species. Reconnaissance surveys noted that American bullfrogs were prevalent throughout the pond, which makes it highly unlikely that a viable California tiger salamander population could successfully breed in the pond, since the bullfrog is a predator to the larvae of the species. Moreover, the lack of rodent burrows in the surrounding upland habitat means that summer and fall sheltering habitat is minimal.	LS	None Required	LS

MITIGATION MONITORING AND REPORTING PROGRAM

It shall be the responsibility of the project applicant/owner to comply with the Mitigation Monitoring and Reporting Program (MMRP) for this project and to reimburse the County for all expenses incurred in the implementation of the MMRP, including any necessary enforcement actions. The MMRP fee for this project is $2,200. This fee includes administrative costs of $900.00, which must be paid to the Office of Planning and Environmental Review prior to recordation of the MMRP and prior to recordation of any final parcel or subdivision map. The remaining balance will be due prior to review of any plans by the Environmental Coordinator or issuance of any building, grading, work authorization, occupancy or other project-related permits.

TERMINOLOGY USED IN THIS EIR

This Draft EIR uses the following terminology to describe environmental effects of the project.

Significance Criteria. A set of criteria used by the lead agency to determine at what level, or “threshold,” an impact would be considered significant. Significance criteria used in this EIR include those that are set forth in the CEQA Guidelines, or can be discerned from the CEQA Guidelines; criteria based on factual or scientific information; criteria based on regulatory standards of local, state, and federal agencies; and criteria based on goals and policies identified in the Sacramento County General Plan.

Less-than-Significant Impact. A project impact is considered less than significant when it does not reach the standard of significance and would therefore cause no substantial change in the environment. No mitigation is required for less-than-significant impacts.

Potentially Significant Impact. A potentially significant impact is a substantial, or potentially substantial, adverse change in the environment. Physical conditions which exist within the area will be directly or indirectly affected by the proposed project. Impacts may also be short-term or long-term. A project impact is considered significant if it reaches the threshold of significance identified in the EIR. Mitigation measures may reduce a potentially significant impact to less than significant.

Significant Unavoidable Impact. A project impact is considered significant and unavoidable if it is significant and cannot be avoided or mitigated to a less-than-significant level once the project is implemented.

Cumulative Significant Impact. A cumulative impact can result when a change in the environment results from the incremental impact of a project when added to other related past, present or reasonably foreseeable future projects. Significant cumulative impacts may result from individually minor but collectively significant projects.

Mitigation. Mitigation measures are revisions to the project that would minimize, avoid, or reduce a significant effect on the environment. CEQA Guidelines §15370 identifies 5 types of mitigation:

a) Avoiding the impact altogether by not taking a certain action or parts of an action.

b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.

d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

e) Compensating for the impact by replacing or providing substitute resources or environments.

1 PROJECT DESCRIPTION

INTRODUCTION

The subject project is a Conditional Use Permit (UPZ) to allow for the construction of an indoor-outdoor kennel to house up to a maximum of 55 squirrel monkeys on a property with a zoning designation of A-5 (Agriculture – 5-acre minimum). The kennel includes a 2,700 square foot steel building with 18 attached outdoor habitats ranging in size from 240 to 288 square feet (~7,800 total square feet). The kennel will be surrounded by a security fence and landscape screening.

PROJECT SETTING

The project site is located at 11859 North Valensin Road on the east side of Colony Road in the Southeast Area community of unincorporated Sacramento County (Plate PD-1 & Plate PD-2).

Assessor Parcel Number: 138-0090-069

ENVIRONMENTAL SETTING

The five-acre project site is developed with a single-family residence, a 40' W x 30' L x 14' H accessory structure, and a 3-stall horse shelter with paddock that will remain on the western end of the property and would be separate from the monkey housing. The existing shop would be used as a central facility to carry out all aspects of monkey care and the horse shelter would be used to store facility maintenance equipment. The proposed kennel/monkey sanctuary will be located in the center of the parcel. This area is currently a fenced, agricultural pasture of approximately two acres. The pasture has an even grade and is kept mowed. Vegetation consists of annual grass, star thistle, and similar annual plants that prefer disturbed soil areas.

The project area appears to contain only Galt clay soils. Galt clay soils are dense, dark clay soils developed in basin areas originally subject to flooding. The nearest perennial water courses are Badger Creek, located approximately 0.80 miles north and Laguna Creek located about 0.75 miles to the southeast.

LAND USE DESIGNATION AND ZONING

According to the Sacramento County General Plan the site has an Agricultural Residential land use designation. The Southeast Area Community Plan designates the property as Agricultural Residential (AR-5). The property is zoned A-5.

Plate PD-1: Vicinity Map

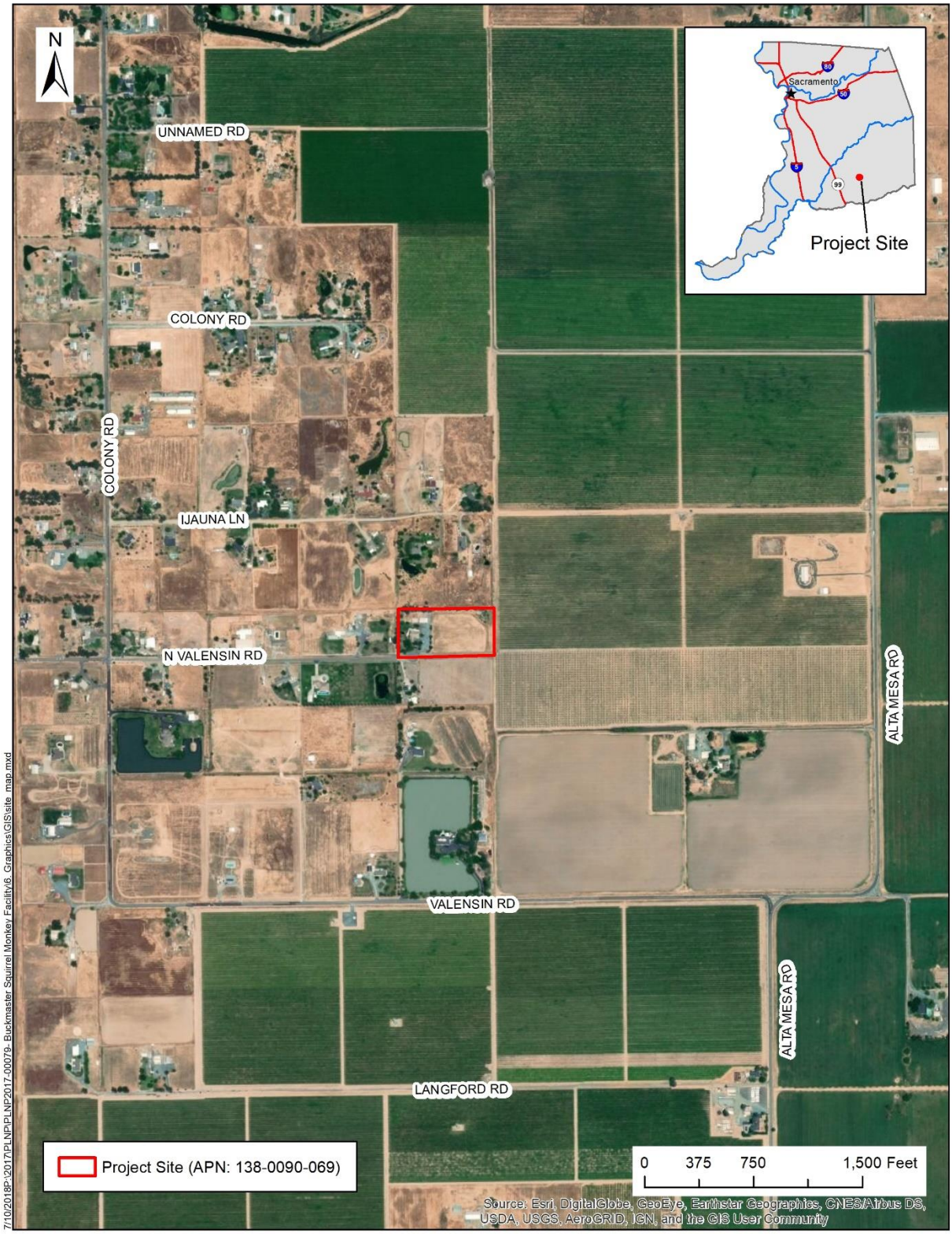


Plate PD-2: Project Site – Zoomed Extent

All adjacent parcels, with the exception of the east bounding parcel, have similar land use and zoning designations as the subject parcel; these properties are developed with single-family residences and accessory structures. The parcel to the east is zoned Agricultural – 20 Acres (AG-20), has a General Agricultural 20 acres (GA-20) land use designation, and is in agricultural production.

The project site is zoned A-5 (Agriculture – 5-acre minimum parcel size) which is an Interim Agricultural Holding Zone. The Interim Agricultural Holding Zones were applied to rural areas of the County that historically were used for agricultural purposes but had the potential to undergo a transition to urban development in the future. Pursuant to the Zoning Ordinance Title IV (Interim Zones), each of the Interim Agricultural Holding Zones has a correlation to a standard base zoning district in the current Zoning Ordinance which is used to establish allowable uses and development standards. The A-5 interim zone district is treated in the same manner as properties that are designated as AR-5 (Agricultural Residential) on the County Zoning Map and Zoning Ordinance. According to Section 3.2.5 of Sacramento County Zoning Code; Table 3.1 of the Zoning Ordinance, kennels; catteries; and, small animal boarding and training facilities in the AR-5 land use zones are permitted subject to the issuance of a conditional use permit by the Zoning Administrator.

Section 3.2.4.A states:

> If a use is not listed in Table 3.1, 3.2, or 3.3, included in a use definition, or shown as a permitted or conditionally permitted use in any zoning district, the use is prohibited, unless the Planning Director determines that either:
>
> 1. The use is substantially similar in characteristics, intensity, and compatibility to a use or uses within the zoning district, applicable to the property; or
>
> 2. The use would be appropriate in the zoning district, applicable to the property as a permitted or conditional use.

Section 3.2.4.B states:

> In those cases where the Planning Director makes a determination that the use meets either Sections 3.2.1 or 3.2.2, the use shall conform to all the regulations, conditions of approval, and use standards applicable to the similar described use(s). If the use would be appropriate in the zoning district as a conditional use, a Conditional Use Permit shall be heard by the designated body for the similar use.

The Planning Director determined that the proposed monkey sanctuary was substantially similar to a kennel pursuant to the findings in Section 3.2.4.A of the Zoning Code, which is allowed in an A-5 zoning district subject to the issuance of a Conditional Use Permit by the Zoning Administrator. Staff was then directed to prepare an environmental document.

The Initial Study did not identify any potentially significant impacts and a Negative Declaration was released for public review on February 13, 2018. The project was approved by the Zoning Administrator on March 21, 2018 and on April 2, 2018, neighbors in proximity to the project site, filed an appeal challenging the Negative Declaration on the grounds a “fair argument” could be made that the project may have significant impacts. The appellant was specifically concerned with land use/zoning code consistencies and biological resources impacts. On June 19, 2018, the County Board of Supervisors approved staff’s recommendation that an EIR be prepared to address these topical areas.

Project Proponents

Owner/Applicant: Paul & Christine Buckmaster

Project Objectives

CEQA requires that an EIR include a statement of objectives for the project, and that the objectives include the underlying purpose of the project. These objectives help the lead agency determine the alternatives to evaluate in the EIR (see CEQA Guidelines Section 15124[a]). The following project objectives have been identified by the applicant:

- To operate a squirrel monkey sanctuary for an existing colony of squirrel monkeys retired from behavioral research.
- To allow new squirrel monkeys that are retired from research to join the colony, up to a maximum of 55 total squirrel monkeys, in order to provide an alternative to euthanization.
- To construct a “Kennel, Cattery, Small Animal Boarding and Training” facility that is adequately sized to provide shelter and care for a colony of 55 squirrel monkey and meets specifications sufficient to obtain accreditation from the Global Federation of Animal Sanctuaries.
- To operate the facility onsite at the project applicants’ residence, who will be the lead caretakers for the squirrel monkeys, to reduce vehicle miles traveled and to ensure the primary caretakers are in close proximity to the facility.

Proposed Project

The proposed project would require a Conditional Use Permit (UPZ) to allow for the construction of the kennel. The proposed facility would permanently house up to 55 squirrel monkeys (initial intake would be 51 monkeys recently retired from research).

The proposed project (reference Plate PD-3 through PD-8) includes the following features:

- One steel agricultural building built to Sacramento County code that measures 30' W x 90' L x 12'H would provide indoor shelter for the monkeys. The building would have a cement floor with a central drain attached to a dedicated septic system. Caging that is professionally designed and constructed to fulfill regulations for the welfare of this species would be installed on the cement floor (See Appendix A: site plan, floor plan, and photo examples of similar facilities).

- In addition to the one building for shelter, there would be outdoor naturalistic habitats planted with trees and shrubs. There would be 18 habitats, 9 measuring 12' W x 20' L x 10' H and six measuring 12' W x 24' L x 10' H. These dimensions fulfill mandated minimum space requirements for this species. Access from the indoor shelter to the habitats is via industry standard aerial runway-tunnels.

- Site preparation is minimal. The housing would be built on a level pasture and no existing trees or shrubs would be removed. Extensive grading will not be required; pasture grasses would be removed by scraping, four to six inches of gravel applied, and a cement pad for the building foundation. The habitat enclosures will sit on level ground. Steel-posts at the corners would be anchored into the ground with cement. A heavy wire mesh guard at the bottom would surround each enclosure and be covered with soil. The enclosures would be mulched and planted.

- An eight-foot tall security fence will be installed around the perimeter of the kennel building and outdoor habitats. Trees and shrubs will be densely planted around the outer perimeter of the fence to provide additional screening of the kennel enclosure.

- **The project site has existing SMUD overhead 12kV facilities in the southwest corner of the property.**

- New septic system – The indoor housing would have a central drain in the cement floor to collect rinse water during cleaning. The rinse water would drain into a dedicated septic system that would be designed by RC Berti Construction of Wilton with input, permitting, and inspection by Sacramento County Environmental Management Division.

- ADA accessible parking space and access path from existing parking area to the kennel facility

In addition to the residents of the home, the facility will employ up to two additional employees. The proposed facility has a nonprofit status as a 501(c)(3) organization and will seek accreditation/membership from the Global Federation of Animal Sanctuaries (GFAS) and the North American Primate Sanctuary Alliance. Accredited sanctuaries that are not permitted as zoos are prohibited from being open to the general public.

Therefore, visitors to the site will be minimal and only by appointment (inspections, animal care providers, and facility sponsors/donors).

Summary of Operating Procedures of Squirrel Monkey Haven

The project proponents have prepared the following summary of operating procedures:

Governance: Squirrel Monkey Haven (SMH) is a tax-exempt 501 (c) (3) organization. Christine Buckmaster is Founder-CEO; Paul Buckmaster DVM is Senior Veterinarian.

Operations: SMH must fulfill regulations set forth by California Department of Fish and Wildlife and the United States Department of Agriculture Animal Welfare Act as well as accreditation standards of the Global Federation of Animal Sanctuaries. These agencies would inspect SMH regularly (CFDW and USDA annually; GFAS tri-annually).

Health: SMH monkeys were born in California and are healthy. None are a health risk to people or other animals. Veterinarians provide health care to all of SMH monkeys. Monkeys are monitored daily for wellness. Law requires Veterinarians to report any animal (dog, cat, horse, rabbit, chicken, monkey, etc.) diseases that could be a risk to human health. None of the SMH monkeys have ever had a disease that was a risk to humans or other animals. A certificate of health from a licensed Veterinarian is required before monkeys can be released from research or transferred between zoos or sanctuaries.

Design: The property is at the end of N. Valensin. The site for the monkey housing is set back from the property boundary and has some existing trees and bushes for visual barrier. Indoor shelter for the monkeys would be a neutral colored steel Ag. building typical for the area. Habitats are wire mesh mandated by regulations. Indoor cages connect to outdoor habitats by aerial runway-tunnels. Habitat interiors have monkey-safe plantings. Habitat perimeters would have more water conserving landscaping for aesthetics. Plants would be maintained by water-conserving drip irrigation

Emergency Preparedness: Escape would be a greater hazard to monkeys' welfare than it would be for humans or other-animals. Significant preventative efforts and protocols are in place to prevent them including double-door entries with locks (see Exhibit D); however, as required by regulatory agencies, in the unlikely event of an escape there is a protocol. See *Emergency Prevention and Action Plan*.

Odor & Waste Removal: Regulations require daily cleaning and weekly sanitation of monkey housing to prevent odor and maintain a healthy environment for monkeys and staff.

- Absorbent bedding (e.g. wood shavings) would be used indoors on the cement floor of each cage to trap and deodorize feces and urine. Soiled bedding would be removed daily and all bedding would be removed weekly and refreshed after cages are sanitized.
- Indoor caging, floors, and walls would be cleaned and deodorized weekly with a sanitizing solution (e.g. Rescue).
- Outdoor habitats would be mulched and soiled areas cleaned and refreshed twice weekly.
- Aisles in the building would be swept and mopped daily with 1:32 bleach solution to keep area clean and prevent odors.
- Soiled bedding/mulch and animal waste would be put in heavy-duty plastic bags and disposed of in a commercial waste bin that has a heavy securable cover to prevent animal entry and odor escape. The bin will be stored next to the monkey housing area and will be picked up weekly by Cal-Waste Recover of Galt. Cal-waste has confirmed that they will schedule weekly pick-up to coordinate with building cleaning days such that waste will be picked-up within 24 hours of cleaning days. No special handling of the waste is required.
- All effluent from the facility would be directed to the dedicated septic system for the facility.

Noise: We do not expect the monkeys to be a noise nuisance in this active agricultural zone but preventative strategies have been investigated and would include 1) On-site analysis by an acoustical engineer to prescribe noise control mitigations 2) The indoor shelter for the monkeys would be insulated to provide acoustical attenuation and 3) Monkeys access to outdoor enclosures would be restricted to 7 AM -8PM weekdays and 9AM-8PM on weekends.

Water Use: The property is serviced by a private well that is not shared with any other property. An estimated 41,000 gallons of water would be used annually for all water needs including; monkey drinking water; cleaning; and water conserving landscaping maintenance.

Well Contamination: The well servicing the property is more than 200 ft. from the monkey housing. Neighboring wells are far more than 300 ft. from the monkey housing. Per Sacramento County Code, a septic system could be placed 100 ft. from a drinking water well. Given monkey housing is a far greater distance from wells, and waste is carefully handled, it is unlikely to contaminate wells.

Traffic: The residence would be home to the Buckmaster family (4). One or two staff members would drive to SMH daily (full-time 5-daysjweek). Guest visits to SMH would be by appointment and restricted to 2 passenger cars per day, on 5 days of the week (five weekdays, or four weekdays and one weekend day). Parking is available on property. No street parking would be necessary. North Valensin is a private road with a binding agreement by neighbors to share the cost of maintaining it.

EMERGENCY PREVENTION AND ACTION PLAN

The applicants have prepared and Emergency Prevention and Action Plan, for the facility. This plan details procedures for preventing and dealing with:

- Monkey Escape;
- Human Medical Emergencies;
- Environmental Emergencies (e.g. Fire and Security Breach);

MONKEY ESCAPE

- **PREVENTION**

  - **ENCLOSURE SECURITY**

    o All monkey housing (indoor and outdoor cages) have double entries that are kept locked at all times.
    o Only SENIOR STAFF hold keys to monkey housing areas and access housing areas for shifting, cleaning, maintenance, or to aid monkey(s).
    o Monkeys are shifted from, and locked out of, housing areas before accessing them.
    o Slides, doors, and gates securing monkeys in housing areas are kept closed and locked at all times.
    NOTE: ALL DOORS, SLIDES, AND GATES ARE KEPT CLOSED AND SECURED WHILE STAFF IS WORKING IN A HOUSING AREA THAT MONKEYS ARE LOCKED OUT OF.
    o Indoor /outdoor enclosures that are not housing monkeys are kept locked at all times.
    o Personnel maintain verbal contact when servicing monkey housing.
    o When possible, enclosures are serviced from the outside to avoid unnecessary enclosure entry.
    o Routine standard operating procedures are used when servicing enclosures to prevent human error.

- **ENCLOSURE STRUCTURAL INTEGRITY**

    o Indoor and outdoor enclosures, runways, service doors, gates, gate latches, hinges, and sliding doors are manually and visually double-checked for function by SENIOR STAFF at opening in the AM and closing in the PM daily, during each visit to the housing area, and after each use to ensure proper functioning.

- **ESCAPE ACTION PLAN**

  - **Perform these ESSENTIAL ACTIONS during an escape:**

- o Maintain visual contact with escapee(s) at all times.
- o Alert all other personnel for assistance.
- o Assess how escape occurred and secure breach to prevent additional escapes while maintaining an open securable area that the escapee(s) can to return to and be locked into.
- o Begin recapture protocol.
- o During an escape event the preferred outcome is that the monkey(s) voluntarily return to the enclosure without human contact.
- o **DARTING WITH SEDATIVE IS NOT STANDARD SOP WITH THIS SMALL SPECIES.**

➢ **RECAPTURE PROTOCOL**

Non-contact method for voluntary return (preferred):
*Squirrel monkeys do not like to be away from their social group and may return quickly

- o Neutral technique (when movement causes retreat from group)
  - • Watch and wait silently for voluntary return.
- o Positive reinforcement technique (PR) (when movement creates interest)
  - • Coax back to enclosure with high value treats.
- o Negative reinforcement technique (NR) (when PR is working but need extra encouragement)
  - • Guide toward and pressure into cage using gloves as visual NR.

NOTE: A combination of the above can be used. Judgment during an episode must guide specific actions. Generally follow this order: neutral --> positive reinforcement --> negative reinforcement.

Contact method (specific procedure described during personnel training sessions):

- o Manual
- o Net

NOTE: Detailed SOPs for various escape-recapture scenarios are provided during training sessions with personnel and during emergency drills.

➢ **PERFORM THESE ACTIONS AFTER THE MONKEY(S) ARE RECAPTURED**

- o Observe for injury.

o Report incident to Attending Veterinarian and make arrangements for treatment as needed.

- **ESCAPE INCIDENT RECORDING, REPORTING, AND INVESTGATION**
  - o Record details of the escape and recapture in the INCIDENT LOG BOOK.
  - o Circumstances enabling an escape are investigated and remedies are put in place immediately.
  - o Report of escape is made to appropriate authorities as required.
  - o Organization-wide meeting is held to discuss the incident to refresh prevention methods.

HUMAN MEDICAL EMERGENCY

- CALL **911** IMMEDIATELY
- Alert other personnel for assistance.
- Perform first aid as appropriate until First Responders arrive.

Note: SMH personnel receive first aid training with annual refresher.

ENVIRONMENTAL EMERGENCY

FIRE

- **ACTION PLAN**
  - CALL **911** IMMEDIATELY
  - Alert other personnel for assistance.
  - Without endangering personal safety, apply fire extinguisher and/or water to reduce fire spread until First Responders arrive.
  - SENIOR STAFF REMAIN PRESENT TO AID FIRST RESPONDERS BY PROVIDING INFORMATION ABOUT THE FACILITY AND TO KEEP MONKEYS SECURED.

- **PREVENTION**
  - Monkey housing and operations buildings are steel.
  - SMH personnel receive annual fire prevention training from the local Fire Authorities.
  - Fire extinguishers (inspected annually) are posted at all buildings.
  - Fire prevention includes management of natural landscape hazards, e.g., grasses.

FACILITY SECURITY

- **ACTION PLAN**

- Call 911 IMMEDIATELY
- Alert other personnel
- Tell intruders to leave the premises- do not approach intruders
- Maintain visual
- Retreat to safety of locked area personal threat is present

- **PREVENTION**

  - Personnel are on site 24/7/365 to monitor facility security.
  - Alarm and video security systems (ADT) are in place.
  - Personnel accompany any guests, contractors, vendors, etc., when

EMERGENCY SUCCESSION PLAN

SMH has prepared an Emergency Succession Plan if the organization is faced with the unlikely event of an untimely vacancy. The plan includes the following:

Succession Plan in Event of a Temporary, Unplanned Absence: Short-Term
The Board of Directors is authorized to implement the terms of this emergency plan in the event of the unplanned absence of the Executive Director. A temporary absence is one of less than three months in which it is expected that the Executive Director will return to his/her position once the events precipitating the absence are resolved.

At the time that this plan was approved, the position of Acting Executive Director would be:

Paul Buckmaster DVM
SMH Attending Veterinarian

Should the standing appointee to the position of Acting Executive Director be unable to serve, the first and second back-up appointees for the position of Acting Executive Director will be:

(1) C. Dell
Business Owner

(2) J. HAHDY
SMH Sanctuary Manager

The Board may consider the option of splitting executive duties among the designated appointees.

Authority and Compensation of the Acting Executive Director
The person appointed as Acting Executive Director shall have the full authority for decision-making and independent action as the regular Executive Director. The Acting Executive Director may be offered a temporary salary increase to the

entry-level salary of the executive director position. Note: P. Buckmaster and C. Dell would not be compensated; J. Hardy would be compensated

Board Oversight
The board shall be responsible for monitoring the work of the Acting Executive Director and will be sensitive to the special support needs of the Acting Executive Director in this temporary leadership role.

Communications plan
As soon as possible after the Acting Executive Director has begun covering the unplanned absence, Board members and the Acting Executive Director shall communicate the temporary leadership structure to the following key external accreditation of SQUIRREL MONKEY HAVEN.

1) Young, Craig & Co., LLP
2) GFAS
3) NAPSA

Completion of Short-Term Emergency Succession Period
The decision about when the absent Executive Director returns to lead SQUIRREL MONKEY HAVEN should be determined by the Executive Director and the Board. They will decide upon a mutually agreed schedule and start date. A reduced schedule for a set period of time can be allowed, by approval of the Board, with the intention of working their way back up to a full-time commitment.

Succession Plan in Event of a Temporary, Unplanned Absence: Long-Term
A long-term absence is one that is expected to last more than three months. The procedures and conditions to be followed should be the same as for a short-term absence with one addition:
The Board of Directors will give immediate consideration, in consultation with the Acting Executive Director, to **temporarily** filling the management position left vacant by the Acting Executive Director. This is in recognition of the fact that for a term of more than three months, it may not be reasonable to expect the Acting Executive Director to carry the duties of both positions. The position description of a temporary manager would focus on covering the priority areas in which the Acting Executive Director needs assistance.

Completion of Long-Term Emergency Succession Period
The decision about when the absent Executive Director returns to lead SQUIRREL MONKEY HAVEN should be determined by the Executive Director and the Board. They will decide upon a mutually agreed upon schedule and start date. A reduced schedule for a set period of time can be allowed, by approval of the *Board,* with the intention of working the way up to a full-time commitment

Succession Plan in Event of a Permanent Change in Executive Director

A permanent change is one in which it is firmly determined that the Executive Director will not be returning to the position. The procedures and conditions should be the same as for the a long-term temporary absence with one addition:

The Board will consider the need for outside consulting assistance depending on the circumstances of the transition and the board's capacity to plan and manage the transition and search. The Board will also determine the need for an Interim Executive Director, and plan for the recruitment and selection of an Interim Executive Director and/or permanent Executive Director.

As Executive Director Christine Buckmaster does not receive compensation. Life insurance policy in the amount of $100,000 is in place to fund the salary for two years (current market rate for similar positions) of a new Executive Director in the event of Christine Buckmaster's death.

Temporary, unplanned absence of critical staff
Other paid staff with direct and daily responsibility for monkey care will be evaluated every 6 months of employment to determine readiness to move into leadership positions should the need arise. In the event of a sudden, unplanned absence of the Executive Director, the Board and the appointed Acting Executive Director (if present) will determine candidates to fill positions that have a direct and daily responsibility for monkey care: Sanctuary Manager, Monkey Caregiver, Veterinary staff.

This Emergency Succession Plan will be reviewed and updated annually.

Zoonotic Disease Program

The SMH Zoonotic Disease Program consists of the following:

1) Comprehensive veterinary care minimizes risk of zoonotic disease through preventative measures and early detection and reporting.

    - The health and wellbeing of each monkey is assessed daily during rounds. If a monkey is found ill a clinical assessment is performed immediately. SMH Veterinarians formulate and implement a diagnostic plan.
        - If a condition is treatable, a treatment plan is implemented.
        - If a condition is terminal, euthanasia is performed at an appropriate stage.
        - Deceased monkeys are submitted to an independent pathology lab to confirm cause of death.
        - In the unlikely event of a diagnosis of a reportable zoonotic disease, as listed by the California Department of Public Health or California Department of Food and Agriculture, SMH Veterinarians contact these agencies to formulate a plan of action.

- o SMH Veterinarians give all monkeys annual health exams that include standard screenings (tuberculin tests) and vaccinations (tetanus and rabies).
- o SMH Veterinarians consult regularly with other local primate veterinary experts at universities and zoos to remain informed of significant disease incidences or changes in vaccination recommendations.

2) Veterinarians and staff use universal precautions when administering medical care to the monkeys that involve exposure to bodily fluids such as blood.

- o Disposable gloves are used when touching monkeys during an exam.
- o Surfaces and equipment are kept sanitized before and after each use.
- o Disposal of medical waste: needles and syringes are placed into a sharps container, other waste is disposed in general trash or in biohazard bags when Veterinarians deem appropriate.

3) Veterinarians and staff use standard precautions when in the monkey housing area.

- o Dedicated shoes are worn in monkey housing areas.
- o Hand sanitizing stations and disposable gloves are in the monkey housing area- hands must be sanitized before entering and leaving the monkey housing area, disposable gloves must be worn in the monkey housing area and removed before exiting.

4) Environmental cleaning and sanitation of monkey housing and care equipment further reduces risk of zoonoses.

- o All care staging areas, e.g., food prep area, is kept sanitized after each use. Food is stored in refrigeration or in pest proof containers.
- o Monkey indoor housing is swept and moped daily, and power-washed and sanitized weekly with bleach solution and other standard animal shelter sanitation solutions, e.g. Rescue. Outdoor habitats are cleaned and sanitized weekly.
- o A licensed pest control contractor provides preventative pest control services regularly.

5) Staff receives zoonotic disease awareness and prevention training annually.

- o Staff is required to have tuberculin screening annually and current vaccinations (tetanus, MMR, influenza).

Intended Uses of the EIR

The EIR will be used by the Sacramento County Board of Supervisors in evaluating the proposed project and rendering a decision to approve or deny the proposed project. In addition, the EIR will be used as an informational document by the public and by other responsible agencies including, but not limited to: California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service.

Table PD-1 below includes information required by Section 15124 of the CEQA Guidelines and summarizes the following intended uses of the EIR:

- A list of agencies that are expected to use the EIR in their decision-making.
- A list of permits and other approvals required to implement the project.
- A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or polices.

Table PD-1: Subsequent Permits, Approvals, Review, and Consultation Requirements

Agency	Approval
Sacramento County Board of Supervisors	Final Environmental Impact Report Certification
Sacramento County Board of Supervisors	Use Permit
Sacramento County Environmental Management Department	On-site Wastewater Disposal Permit
California Department of Fish and Wildlife	Consultation if nesting bird species found; Wild Animal Permit
Sacramento County Animal Control and Regulation	Wild Animal Permit
U.S. Department of Agriculture	Inspections pursuant to Animal Welfare Act
Global Federation of Animal Sanctuaries	Optional accreditation

Plate PD-3: Proposed Site Design

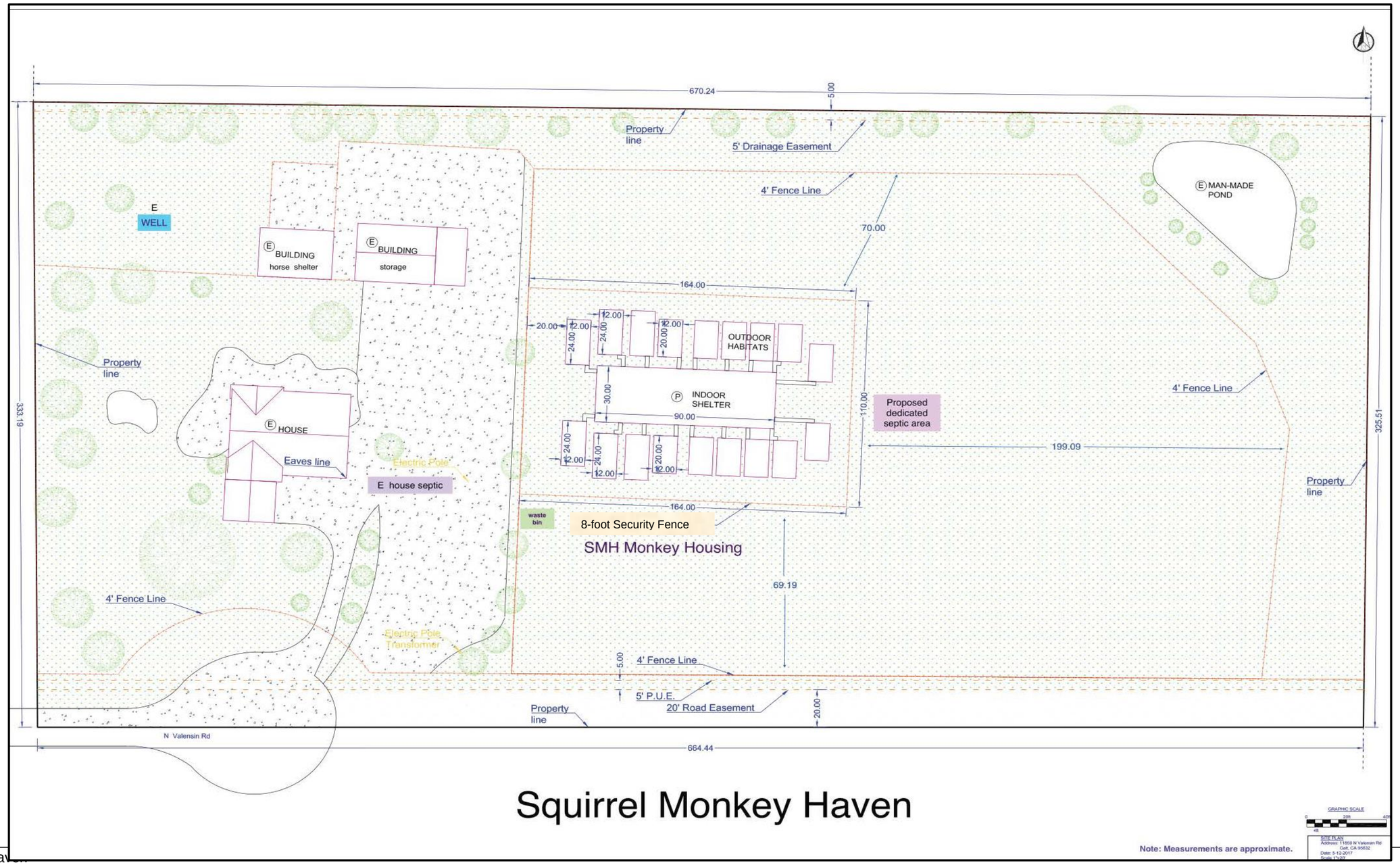


Plate PD-4: Landscape Plan

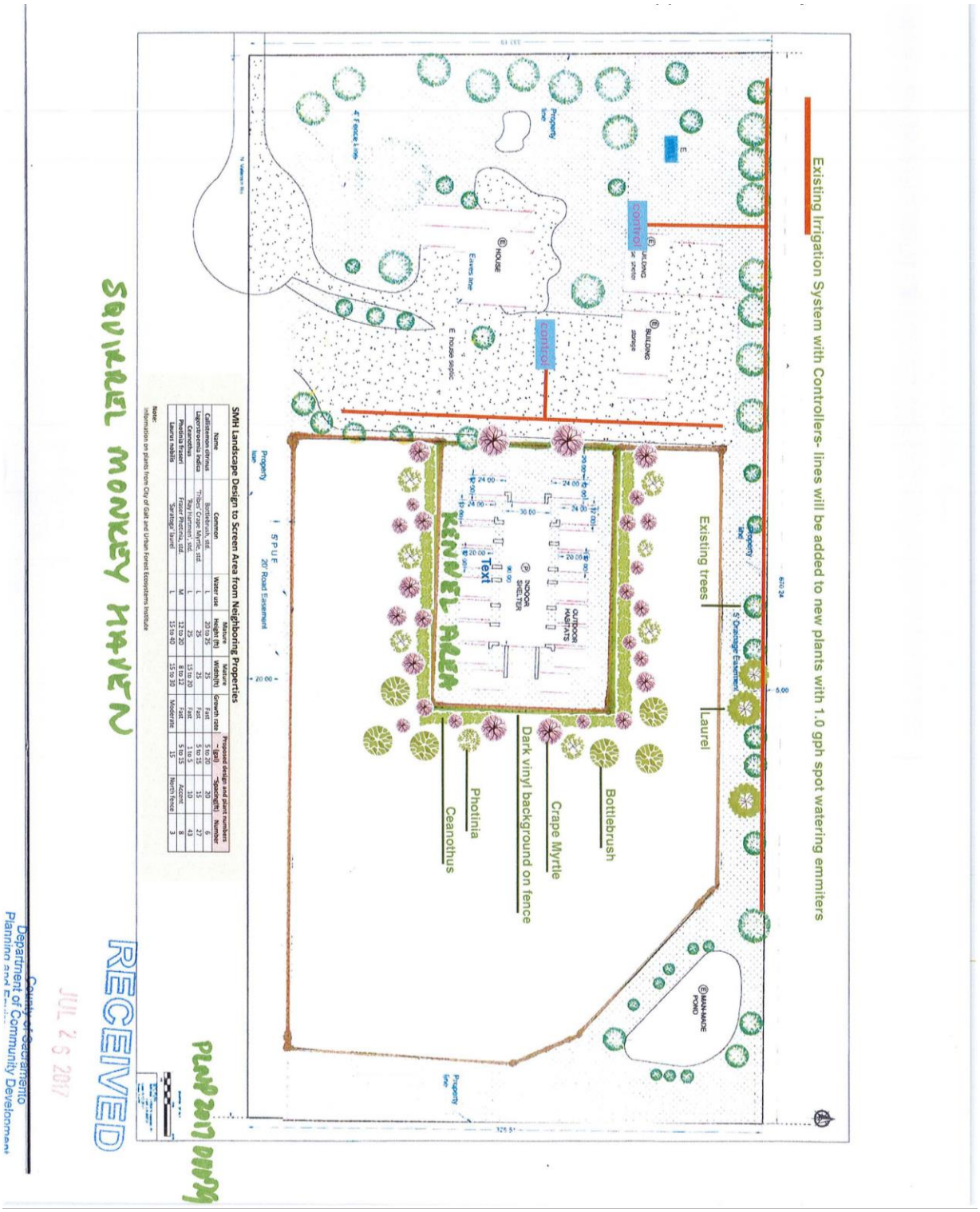


Plate PD-5: Facility Layout

PLNP 2017 - 00079

EXHIBIT 3 Squirrel Monkey Haven Indoor Shelter and Habitat Conceptual Floorplan
30' W x 90' L x 12' H steel Agriculture building with 1% sloped cement floor to center drain.
Materials and space mandated by regulations.
Interior caging 1" x 1" mesh wire on aluminum tubing frame.
Habitats 1" x 1" heavy cauge wire mesh with steel tube frame and bottom perimeter guards.

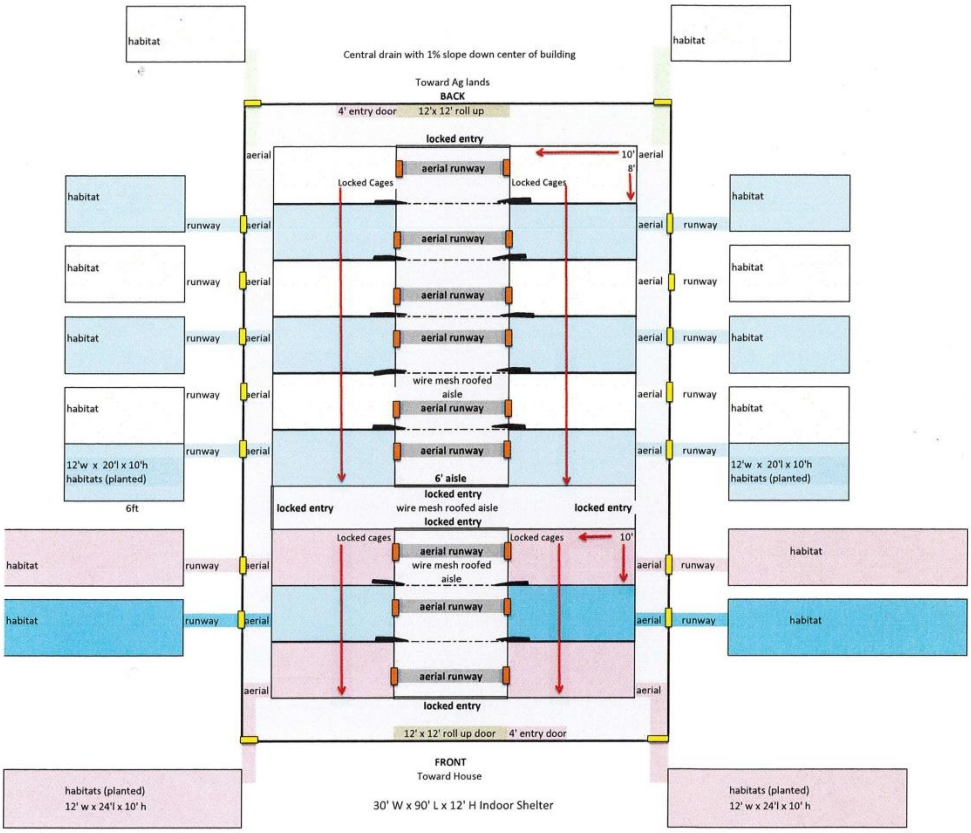
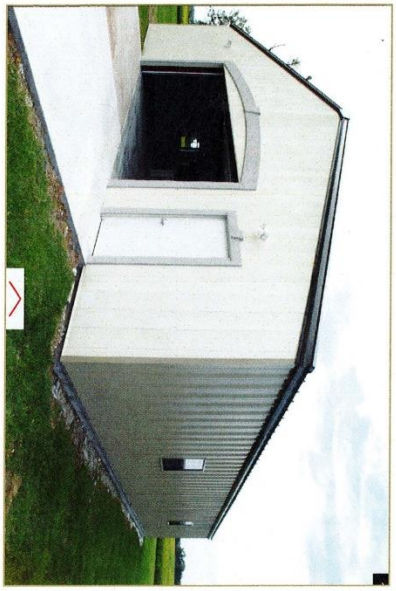
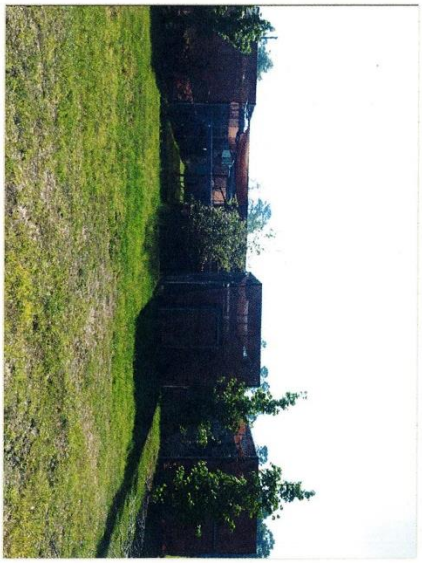


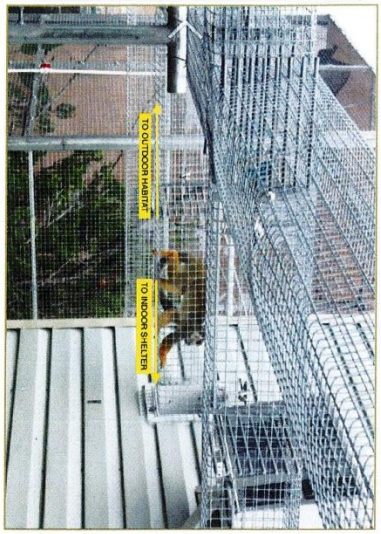
Plate PD-6: Example of Indoor and Habitat Design Components



Ag Building Indoor Shelter



Closest neighbor view (building in center)



Aerial Runway-tunnels

Habitats

Double Locked Entry

Plate PD-7: View 1 of proposed Facility

Plate PD-8: View 2 of Proposed Facility

2 ALTERNATIVES

INTRODUCTION

This chapter describes a range of reasonable alternatives to the proposed project. An evaluation comparing impacts of the alternatives to the impacts of the proposed project is included. This chapter concludes with the chosen “environmentally superior alternative.”

RANGE OF ALTERNATIVES

The State CEQA Guidelines require analysis of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the project’s basic objectives and avoid or substantially lessen any of the significant effects of the project (Section 15126.6[a]). The range of potentially feasible alternatives required in an EIR is governed by a “rule of reason” that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The State CEQA Guidelines further require that the alternatives be compared to the project’s environmental impacts and that the “no project” alternative is considered (Section 15126.6[d] [e]).

In determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project’s significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Only feasible alternatives need be considered. “Feasibility” of alternatives is described in the State CEQA Guidelines (Section 15364) as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” The ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency’s decision-making body (see PRC Section 21081[a] [3]).

PROJECT OBJECTIVES

Pursuant to Section 15126.6 of the CEQA Guidelines, an alternative must “attain most of the basic objectives of the project.” The stated objectives are as follows:

1. To operate a squirrel monkey sanctuary for an existing colony of squirrel monkeys retired from research.

2. To allow new squirrel monkeys that are retired from research to join the colony, up to a maximum of 55 total squirrel monkeys, in order to provide an alternative to euthanization.

3. To construct a “Kennel, Cattery, Small Animal Boarding and Training” facility that is adequately sized to provide shelter and care for a colony of 55 squirrel monkey and meets specifications sufficient to obtain accreditation from the Global Federation of Animal Sanctuaries.

4. To operate the facility onsite at the project applicants’ residence, who will be the lead caretakers for the squirrel monkeys, to reduce vehicle miles traveled and to ensure the primary caretakers are in close proximity to the facility.

Dismissed Alternative

Alternative Sites

Under this alternative, the proposed facility would be built with similar specifications and would house the same number of monkeys, but would be located at an alternative location within unincorporated Sacramento County.

The applicants were considering another five-acre property in an AR-5 zoning district in the Cosumnes community of unincorporated Sacramento County; however, the site was no longer available by the time the project was taken to the Consumes Community Planning Advisory Council hearing. While there are several other zoning districts that would allow the use, all of them would also require a use permit. Screening criteria for this alternative would depend largely upon the availability of a parcel for purchase that met the parcel size and zoning parameters needed for development.

This alternative was dismissed from further evaluation since many of these variables are out of the applicants’ control. Since no significant impacts were identified with the project proposal and the applicant already owns a parcel that would allow the use with approval of a use permit there is no need to evaluate an alternative site as the environmental impacts would likely be similar to the project as proposed. State CEQA Guidelines Section 15126.6 (f)(3) states that an EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

Description of Alternatives

Alternative 1: No Project

State CEQA Guidelines Section 15126.6 (e)(1) requires that the no project alternative be described and analyzed “to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project.” The no project analysis is required to discuss “the existing conditions at the time the notice of preparation is published…as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.”

Under the No Project Alternative, the project would not be built on the site and the site would remain in its current state. No physical environmental changes to the site would occur; however, this would not preclude future development proposals.

Alternative 2: Less Monkeys

This alternative would allow only 25 moneys; to be housed in the facility. This would result in a 50.5% reduction in the number of monkeys (51 monkeys) currently proposed by the applicant. With less monkeys, a smaller facility would be required to house them.

Alternative 3: No New Monkeys

This alternative assumes that the sanctuary facility would be located on the same site and built to the same specifications; however, the facility would only be able to house the proposed 51 monkeys and would not be able to take in new monkeys.

Impacts And Analysis

The following discussion evaluates the three project alternatives identified above. It is important to note that there were no significant impacts identified with the proposed project. Table ALT-1 summarizes which project objectives are met by the identified alternatives. Table ALT-2 summarizes the effect of the alternatives relative to the project.

Table ALT-1: Objectives Achieved by Project Alternatives

Project Objectives	Objective Met?		
	Alternative 1	Alternative 2	Alternative 3
To operate a squirrel monkey sanctuary for an existing colony of squirrel monkeys retired from research.	No	Yes	Yes
To allow new squirrel monkeys that are retired from research to join the colony, up to a maximum of 55 total squirrel monkeys, in order to provide an alternative to euthanization.	No	No	No
To construct a “Kennel, Cattery, Small Animal Boarding and Training” facility that is adequately sized to provide shelter and care for a colony of 55 squirrel monkey and meets specifications sufficient to obtain accreditation from the Global Federation of Animal Sanctuaries.	No	No	Yes
To operate the facility onsite at the project applicants’ residence, who will be the lead caretakers for the squirrel monkeys, to reduce vehicle miles traveled and to ensure the primary caretakers are in close proximity to the facility	No	Yes	Yes

Table ALT-2: Comparison of the Environmental Impacts of the Alternatives in Relation to the Proposed Project

Environmental Topic	Proposed Project	Alternative 1	Alternative 2	Alternative 3
Land Use	LTS	Similar	Similar	Similar
Hydrology, Drainage, and Water Quality	LTS	Similar	Similar	Similar
Public Services	LTS	Similar	Similar	Similar
Traffic and Circulation	LTS	Less	Similar	Similar
Air Quality	LTS	Similar	Similar	Similar
Noise	LTS	Similar	Similar	Similar
Cultural Resources	LTS	Similar	Similar	Similar
Greenhouse Gases and Climate Change	LTS	Similar	Similar	Similar
Biological Resources	LTSM	Similar	Similar	Similar

LTS = Less Than Significant Impact, LTSM = LTS with Mitigation

Alternative 1: No Project

The No Project Alternative could result in two different scenarios. It could result in no additional development on the site, or the site could develop with uses already permitted by right by the Sacramento County Zoning Code. With the implementation of the no build scenario, the proposed development would not occur and there would be no physical changes to the project site. This alternative would not affect demand for utilities, service systems, or energy use because no new uses would be developed, and there would be no effects relative to cultural resources, traffic, air quality, hydrology, greenhouse gases and climate change, noise, or biological resources because no construction would occur. Overall, the no build scenario would result in less environmental impacts than the proposed project.

The No Project Alternative does not rule out future developmental proposals however. The AR-5 zoning district allows by right such things as hog farms, stables, and corrals (commercial or private). The residents could begin a small farming operation involving plowing, higher water usage, and use of light to heavy equipment on the site. The Sacramento County Zoning Code does not limit the number of livestock or farm animals the owner could have on premise, nor the types of crops that could be grown; therefore, it could be argued that if one of these uses were proposed, the No Project Alternative has the potential for similar or greater impacts than the proposed project.

Alternative 2: Less Monkeys

This alternative would allow only 25 monkeys to be housed in the facility. This would result in a 50.5% reduction in the number of monkeys (51 monkeys) currently proposed by the applicant. This alternative would likely result in a small reduction in water usage and monkey waste output; however, the project's impacts on public services were already identified as less than significant so it is not significantly lessening a significant impact.

With less monkeys, a smaller facility would be required to house them. The potential impacts of the proposed project center around the construction of the monkey housing not the operation of the facility. Potential construction impacts, (i.e. disturbance of nesting birds and potential cultural resource discovery) would remain the same whether a larger facility accommodating 55 monkeys or a smaller facility that houses only 25 monkeys were to be built.

All the other environmental topic areas are expected to be similar to the project, since the only change to the project description would be the number of monkeys allowed. Overall, the effects of this alternative would be similar to the proposed project; however, it would only meet two of the four project objectives.

Alternative 3: No New Monkeys

This alternative assumes that the sanctuary facility would be located on the same site and built to the same specifications; however, the facility would only be able to house the proposed 51 monkeys and would not be able to take in new monkeys. This alternative would likely result in a small reduction in water usage and monkey waste output over time as monkeys passed away; however, the project's impacts on public services were already identified as less than significant. Once the last monkey passed away, the facility would no longer be in operation. This alternative essentially would limit the timeframe that the facility would be in operation.

All the other environmental topic areas are expected to be similar to the project, since the only change to the project description would be the number of monkeys allowed. Overall, the effects of this alternative would be similar to the proposed project; but would only meet three of the four project objectives.

Environmentally Superior Alternative

The No Project Alternative would result in less environmental impacts than the proposed project should the applicants choose to pursue a no build scenario. However, other uses, allowed by right, could have similar or greater impacts than the proposed project. This alternative would not meet any of the project's objectives.

Based on the information and the comparison of environmental impacts in Table ALT-2, both Alternative 2 and Alternative 3 would have similar impacts to the proposed project. Both alternatives would still construct a kennel facility and would necessitate the same mitigation measures as the proposed project. Neither alternative would meet all the objectives of the proposed project.

Potential impacts of the project center around the construction activities associated with the monkey housing. Only the No Project, no build scenario would avoid these potential impacts completely, and would be considered the environmentally superior alternative. However, the CEQA Guidelines state that when the No Project Alternative is the

environmentally superior alternative, the EIR must also identify the environmentally superior of the other alternatives (section 15126(e)(2)).

The proposed project and both Alternative 2 and Alternative 3 would build the kennel facility. Potential impacts of the proposed project and these alternatives are related to the construction activities associated erecting the kennel structure. Impacts from the proposed project and the two build alternatives would, therefore, be similar in nature and neither would be environmentally superior to the other.

3 LAND USE

INTRODUCTION

The purpose of this chapter is to examine the project's proposed land use and provide an analysis of its compatibility with the existing and planned land uses in the area. This chapter describes the land use context for the project site and its surroundings, including existing land use, land use designations, and zoning. In addition, this chapter includes a summary of applicable land use policies and describes the project's compatibility with these policies.

SETTING

According to the Sacramento County General Plan, the site has an Agricultural Residential land use designation (reference Plate LU-1). The Southeast Area Community Plan designates the property as having an Agricultural-Residential (AR-5) land use designation (reference Plate LU-2). The property is zoned A-5 (Agriculture – 5-acre minimum parcel size; reference Plate LU-3).

All adjacent parcels, with the exception of the east-bounding parcel, have similar land use and zoning designations as the subject parcel; these properties are developed with single-family residences and accessory structures. The parcel to the east is zoned Agricultural – 20 Acres (AG-20), has a General Agricultural 20 acres (AG-20) land use designation, and is in agricultural production.

Plate LU-1: General Plan 2030 Land Use Designations

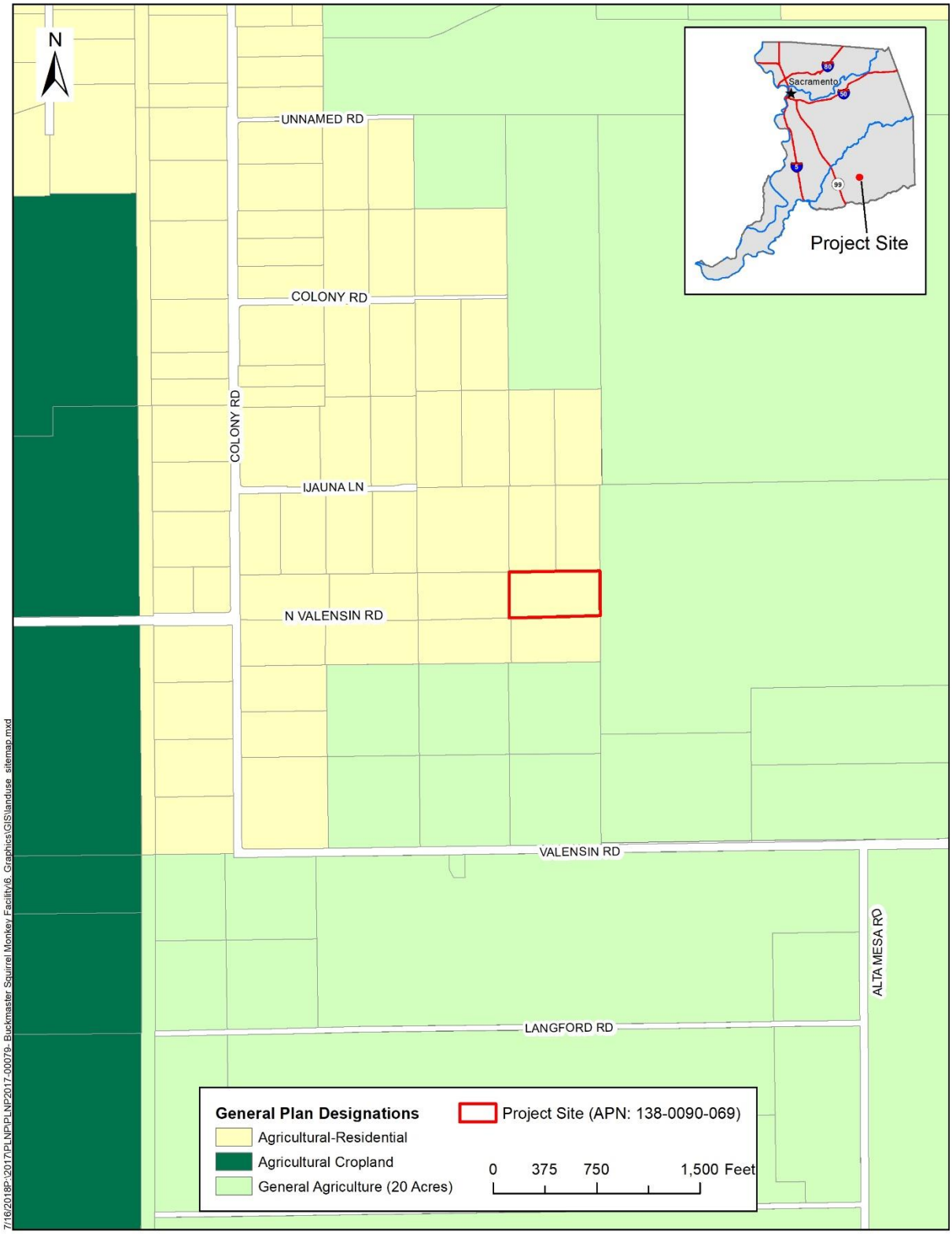


Plate LU-2: Southeast Area Community Plan Land Use Designations

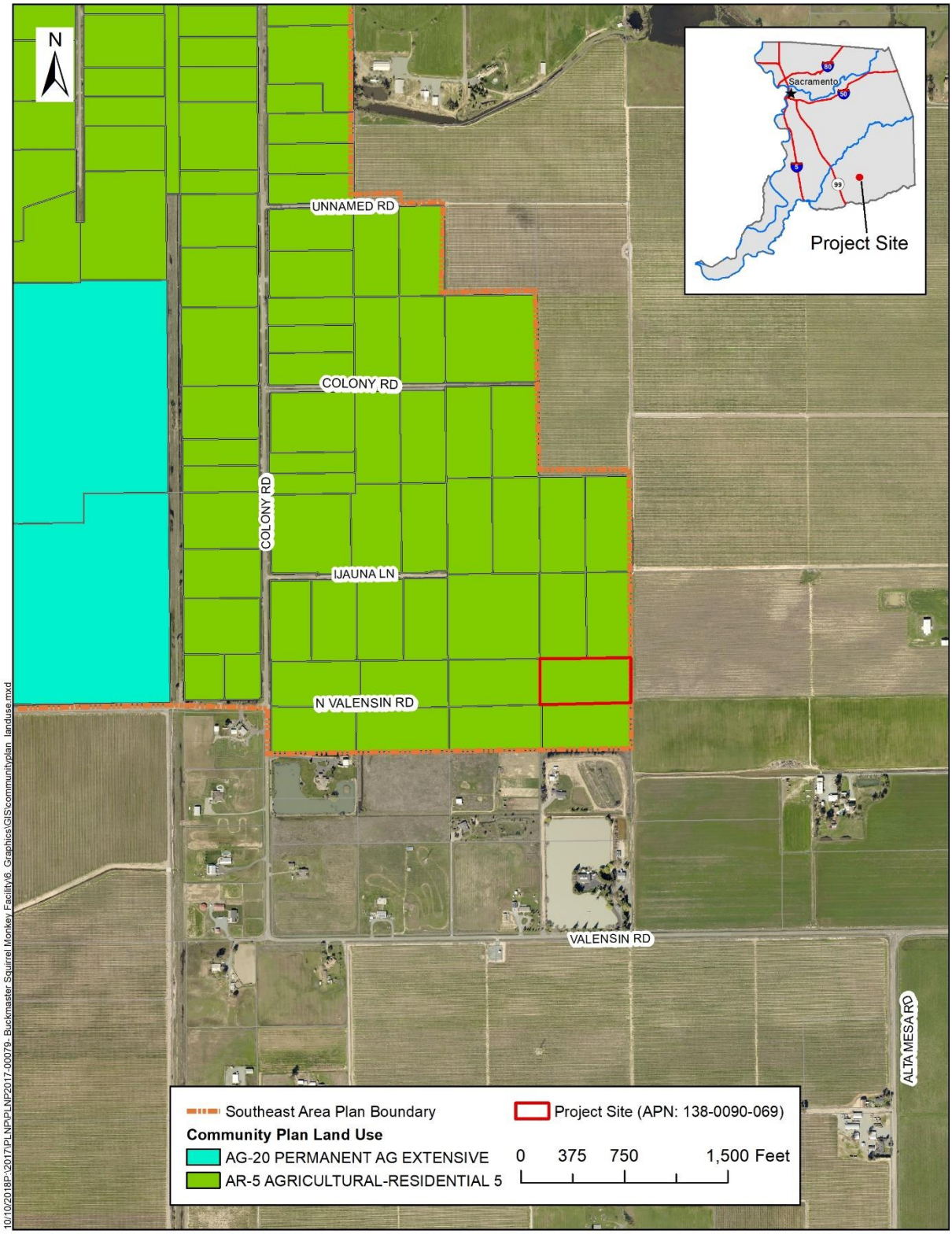
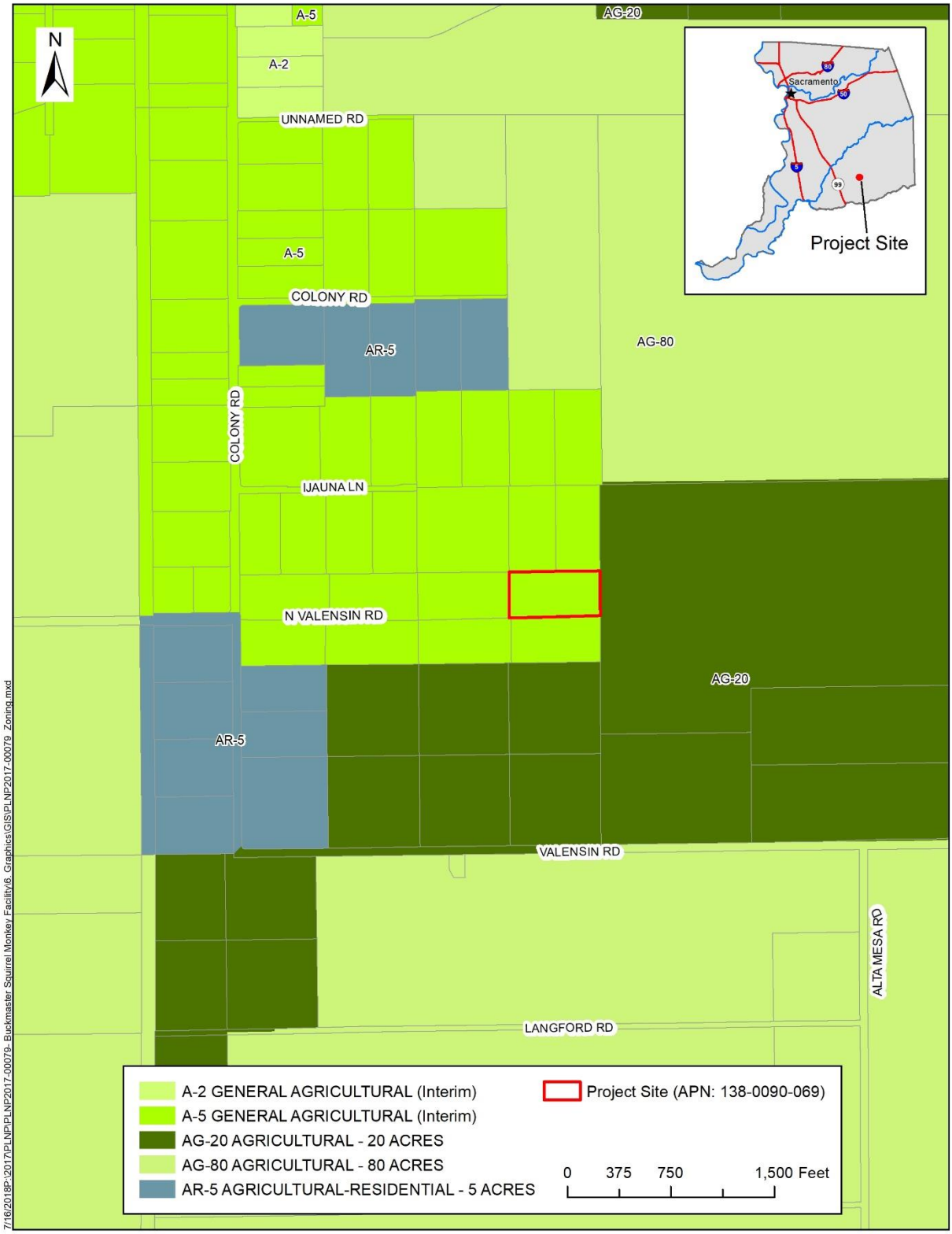


Plate LU-3: Zoning Designations



Regulatory Setting

Sacramento County General Plan

The project site is designated as Agricultural-Residential in the Sacramento County General Plan, which allows for one- to ten-acre minimum lots, resulting in a development density of 2.5 to 0.25 persons per acre. The Agricultural-Residential designation allows rural residential uses such as animal husbandry, small-scale agriculture, and other limited agricultural opportunities. The subject property is outside the county Urban Service Boundary (USB) and therefore public infrastructure for water and sewage is not available.

Southeast Area Community Plan

Sacramento County is divided into distinct community areas for planning purposes. These community planning areas encompass socially and economically similar areas with an established sense of community identity. The subject project site is located in the Southeast Area Community Plan and has an AR-5 (Agricultural-Residential 5-acres) land use designation.

Zoning Code

The current version of the Sacramento County Zoning Code was adopted by the Board of Supervisors in September 2015 and is used to encourage the most appropriate use of land; to conserve, protect and stabilize the value of property; to provide adequate open space for light and air; to prevent undue concentration of population; to lessen congestion on the streets; to facilitate adequate provisions for community utilities such as transportation, water, sewer, schools, parks and other publicly owned facilities; and to promote public health, safety and general welfare.

The project site is zoned A-5. A-5 zoning is an Interim Agricultural Holding Zone. The Interim Agricultural Holding Zones were applied to rural areas of the County that historically were used for agricultural purposes but had the potential to undergo a transition to urban development in the future. Pursuant to the Zoning Ordinance Title IV (Interim Zones), each of the Interim Agricultural Holding Zones has a correlation to a standard base zoning district in the current Zoning Ordinance which is used to establish allowable uses and development standards. The A-5 interim zone district is treated in the same manner as properties that are designated as AR-5 (Agricultural Residential) on the County Zoning Map and Zoning Ordinance. According to Section 3.2.5 of Sacramento County Zoning Code; Table 3.1 of the Zoning Ordinance, kennels; catteries; and, small animal boarding and training facilities in the AR-5 land use zones are permitted subject to the issuance of a conditional use permit by the Zoning Administrator.

Zoning Code Section, 3.2.4.A states:

> If a use is not listed in Table 3.1, 3.2, or 3.3, included in a use definition, or shown as a permitted or conditionally permitted use in any zoning district, the use is prohibited, unless the Planning Director determines that either:
>
> 1. The use is substantially similar in characteristics, intensity, and compatibility to a use or uses within the zoning district, applicable to the property; or
> 2. The use would be appropriate in the zoning district, applicable to the property as a permitted or conditional use.

Zoning Code, Section 3.2.4.B states:

> In those cases where the Planning Director makes a determination that the use meets either Sections 3.2.1 or 3.2.2, the use shall conform to all the regulations, conditions of approval, and use standards applicable to the similar described use(s). If the use would be appropriate in the zoning district as a conditional use, a Conditional Use Permit shall be heard by the designated body for the similar use.

The Planning Director determined pursuant to the findings in Section 3.2.4.A of the Zoning Code that the proposed monkey sanctuary was substantially similar to a kennel, which is allowed in an A-5 zoning district subject with the issuance of a Conditional Use Permit by the Zoning Administrator.

Significance Criteria

Based on Appendix G of the State CEQA Guidelines, the project would result in a significant impact to land use if it would:

- physically disrupt or divide an established community;
- conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Impacts And Analysis

The analysis in this section is based on a review of the Sacramento County General Plan of 2005-2030 (2030 General Plan), the Southeast Area Community Plan, and the Sacramento County Zoning Code. The project's consistency with applicable planning documents is used as the basis for determining the effects of the project on existing and planned land uses.

Impact: Consistency with General Plan, Southeast Area Community Plan, and County Zoning Code

General Plan

The General Plan does not specifically address accessory uses or structures. The majority of the General Plan's goals, objectives, and policies related to the Agricultural-Residential land use designation pertain to expansion of the Urban Services Boundary (USB), protection of prime agricultural lands, and maintaining a minimum parcel size of five acres. The proposed project will not change the USB, will be served by private well and septic, is not designated as prime agricultural lands on the important farmlands map, and is five acres in size. Therefore, the project is consistent with the County's General Plan and Agricultural-Residential land use designation.

Community Plan

The Southeast Area Community Plan designation will remain Agricultural-Residential and the project is consistent with the uses and densities allowed in an Agricultural-Residential land use. The proposed project meets the five-acre minimum parcel size designated by the AR-5 land use designation in the Southeast Area Community Plan. The project will not disrupt or divide the existing community.

Zoning Code

Zoning Ordinance Section 5.3 provides development standards for Agricultural-Residential Zone districts. Section 5.3.2 addresses accessory structures and has different standards based on type of agricultural structure such as private or commercial or if the structure is residential such as a garage or shed. The proposed kennel facility, while not open to the public is somewhat commercial in nature as there will be two employees that do not live on the property and pursuant to the Building Code will be required to meet ADA parking and accessibility requirements. The setback requirements for commercial agriculture accessory structures is greater than for private agricultural accessory structures, however private accessory structures have greater restrictions on size and height. Table I identifies the zone district standards for both types of accessory structures and the proposed project's compliance with a respective standard.

Table LU-1: Development Standard Consistency

	Table 5.5 Commercial Accessory Structure Standards	Table 5.6 Private Accessory Structure Standards	Proposed Project
Minimum Parcel Size	5 acres per zoning	2 acres	5 acres
Setbacks, Building/Structures (measured from property line)			
Front/Side Street	55 feet	25 feet / 17.5	162 feet structure 123 feet kennel fence
Side Yard	50 feet	10 feet	295 feet structure 267 feet kennel fence
Rear Yard	50 feet	20 feet	137 feet structure 97 feet kennel fence
Building Height	50 feet	30 feet	12 feet
Maximum Building Size	No restrictions	200 % primary structure (4,570 feet)	2,700 square feet

As shown in

Table LU-1: Development Standard Consistency, the proposed project significantly exceeds minimum setback requirements and is well below the height and maximum size thresholds regardless of which accessory structure standard is used.

Some of the neighboring properties have horses and other livestock. Kennels are considered a generally compatible use within agricultural and agricultural/residential areas which allow other animal related uses. The proposed project is not expected to significantly alter current land uses in the area. Assuming compliance with the Zoning Code development standards, and standards of Animal Care and Regulation, no significant impacts are expected. Since the project is consistent with the General Plan, community plan, and County Zoning Code, the project's land use impacts are considered ***less than significant***.

MITIGATION MEASURES

No mitigation is required.

4 HYDROLOGY, DRAINAGE, & WATER QUALITY

INTRODUCTION

This chapter describes the existing hydrologic and water quality setting for the project site, including runoff, storm drainage, flooding, and groundwater. Applicable regulations and policies regarding hydrology and water quality are discussed, and impacts that may result from project implementation are identified.

ENVIRONMENTAL SETTING

CLIMATE

The climate of the Sacramento area is Mediterranean, with cool wet winters and hot dry summers. Precipitation within the Sacramento River watershed falls as both rain and snow, with precipitation in the winter falling primarily as snow in the higher elevations. Annual, monthly, and daily precipitation varies widely within the watershed, with the highest precipitation totals generally falling in winter in the Sierra Nevada, and in the northern part of the watershed. The high variability in precipitation, snowfall, and snowmelt results in highly variable runoff patterns each year and month during late fall, winter, and spring. Rainfall occurs primarily from November through April and ranges from about 7 to 37 inches per year, with an average annual rainfall of approximately 18 inches (Sacramento Groundwater Authority 2013).

HYDROLOGY

Water resources within the county include four rivers (Sacramento, American, Cosumnes, and Mokelumne), numerous streams, the Sacramento River Delta (Delta), and an extensive groundwater basin. The primary watershed within Sacramento County is the Sacramento River Basin, which encompasses 26,500 square miles and is bounded by the Sierra Nevada Mountains to the east, Coast Ranges to the west, the Cascade Range and Trinity Mountains to the north, and the Delta to the south. Within the Sacramento River Basin there are several sub-basins or smaller watersheds that drain to the tributaries of the Sacramento River including the Willow Creek (South) watershed. The project site is located within the Willow Creek (South) watershed.

DRAINAGE

The average runoff from the Sacramento River Basin is estimated to be 21.3 million acre-feet per year, and the melting snow pack in the Sierra Nevada keeps the water flowing during dry summer months. Drainage within Sacramento County, including the project vicinity, is primarily provided by engineered drainage systems consisting of pipes, gutters, swales, ditches, and graded land (County of Sacramento 2010).

The project site generally drains northwesterly towards the drainage channel at the northern end of property. Drainage continues west across the neighboring parcel where

it is channeled into the Willow Canal, which continues westerly across the next two properties before heading south across N. Valensin Road. The canal continues westerly across agricultural fields where it intersects Badger Creek, which terminates into the Cosumnes River. At its intersection with McKenzie Road, the Willow Canal also has a southern diversion, which flows into Laguna Creek (South) which terminates into the Cosumnes River (please see Plate WQ-1).

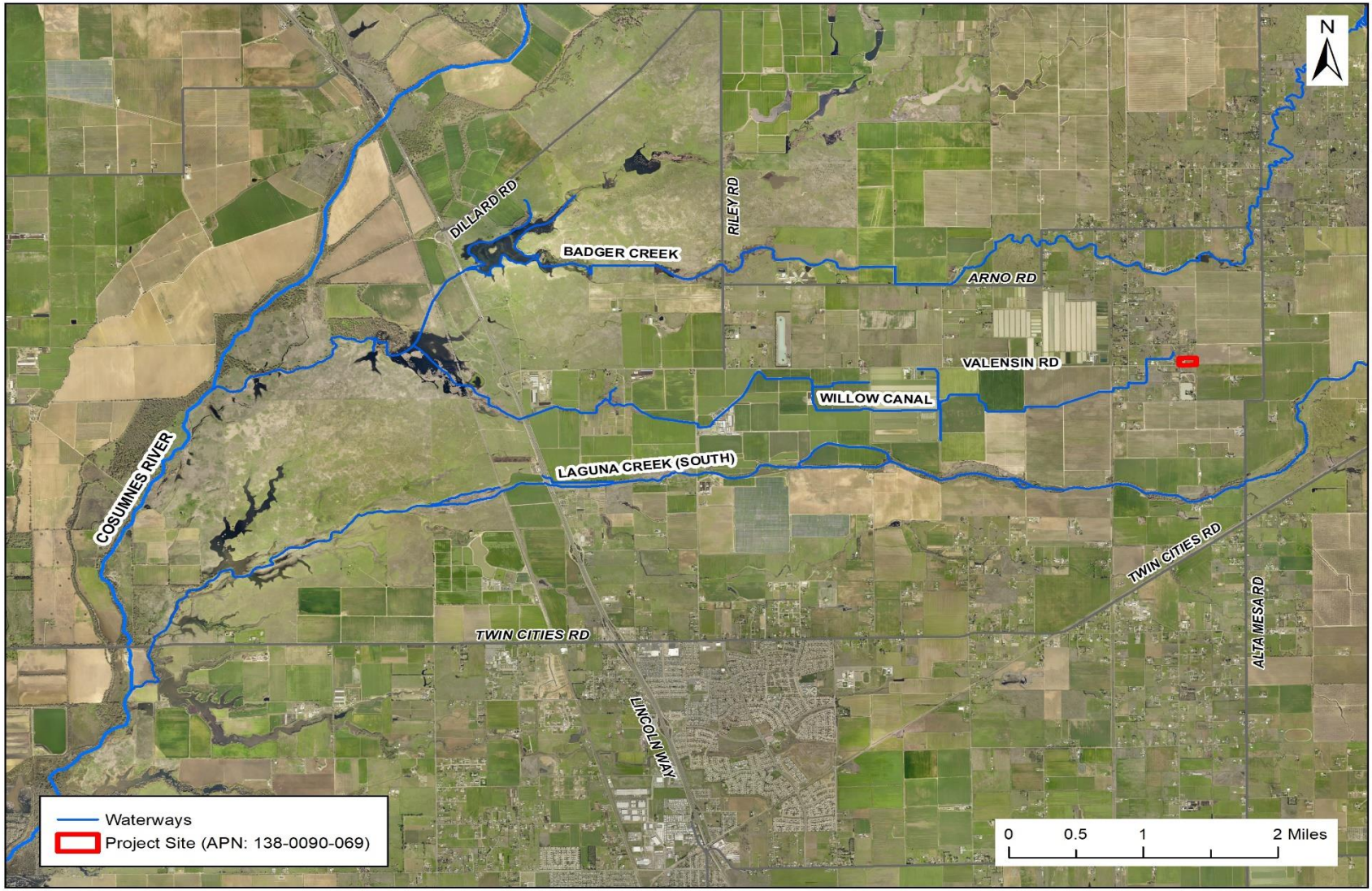
Regulatory Setting

Federal

The Clean Water Act (CWA) is the primary federal statute governing the protection of water quality and was established to provide a comprehensive program to protect the nation's surface waters. U.S. Environmental Protection Agency (EPA) is the federal agency with primary authority for implementing regulations adopted pursuant to the CWA. The basis of the CWA consists of the federal Water Pollution Prevention and Control Act (Water Pollution Act) passed in 1948. The Water Pollution Act was substantially reorganized and expanded in subsequent amendments passed in 1972 and in 1977, when "Clean Water Act" became its common name. The Water Pollution Act required the EPA to establish nationwide effluent standards on an industry-by-industry basis. The 1972 amendment established the National Pollutant Discharge Elimination System (NPDES) program. As a result of the reauthorization of the CWA in 1987, Sections 402(p) through 405 were added. One of the results of the new sections was the creation of a framework for regulating discharges under the NPDES permit program, which is discussed later in this section.

Under federal law, EPA has published water quality regulations under Volume 40 of the Code of Federal Regulations. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question, and (2) criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. EPA has designated the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) with the authority to identify beneficial uses and adopt applicable water quality objectives. EPA has delegated to the State of California the authority to implement and oversee most of the programs authorized or adopted for CWA compliance through the Porter-Cologne Water Quality Control Act of 1969 (Porter-Cologne Act), described below.

Plate WQ-1: Regional Drainage from Project Site



STATE

In California, the State Water Resources Control Board has broad authority over water quality control issues for the state. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the state by the federal government under the CWA. Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt water quality control plans for all areas in the region and establish water quality objectives in the plans. The Central Valley RWQCB is responsible for water resources in the project vicinity.

On January 20, 2005, the SWRCB adopted the Low Impact Development (LID) Policy, which promotes “sustainability” as a key parameter to be considered during the design and planning process for future development. The sustainability practice promotes LID to benefit water supply and contribute to water quality protection. LID has been a proven approach in other parts of the country and is seen in California as an alternative to conventional stormwater management. It is necessary to incorporate LID into the design of proposed projects to meet the “maximum extent practicable” standard of the Phase II General Permits (see discussion of NPDES permits, below). LID practices include measures such as reducing impervious surface area, using natural drainage systems, and designing development to correspond to existing terrain.

PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Act is California’s statutory authority for the protection of water quality. Under the Porter-Cologne Act, the state must adopt water quality policies, plans, and objectives that protect the state’s waters for the use and enjoyment of the people. The act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update basin plans. Basin plans are the regional water quality control plans required by both the CWA and Porter-Cologne Act in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California.

The Porter-Cologne Act also requires waste dischargers to notify the RWQCBs of their activities through the filing of reports of waste discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, NPDES permits, Section 401 water quality certifications, and other approvals. The RWQCBs also have the authority to issue waivers to reports of waste discharge/waste discharge requirements for broad categories of “low threat” discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

STATE NON-DEGRADATION POLICY

In 1968, the SWRCB adopted a nondegradation policy aimed at maintaining high quality for waters in California. The nondegradation policy states that the disposal of wastes into state waters shall be regulated to achieve the highest water quality consistent with maximum benefit to the people of the state and to promote the peace, health, safety, and welfare of the people of the state. The policy provides as follows:

a) Where the existing quality of water is better than required under existing water quality control plans, such quality would be maintained until it has been demonstrated that any change would be consistent with maximum benefit to the people of the state and would not unreasonably affect present and anticipated beneficial uses of such water.

b) Any activity which produces waste or increases the volume or concentration of waste and which discharges to existing high-quality waters would be required to meet waste discharge requirements.

Local

Sacramento County General Plan

The Conservation Element of the County General Plan (2011) contain the following policies that are applicable to the project:

Policy CO-24. Comply with the Sacramento Areawide National Pollutant Discharge Elimination System Municipal Stormwater Permit (NPDES Municipal Permit) or subsequent permits, issued by the Central Valley Regional Water Quality Control Board (Regional Board) to the County, and the Cities of Sacramento, Elk Grove, Citrus Heights, Folsom, Rancho Cordova, and Galt (collectively known as the Sacramento Stormwater Quality Partnership [SSQP]).

Policy CO-26. Protect areas susceptible to erosion, natural water bodies, and natural drainage systems.

Policy CO-30. Require development projects to comply with the County's stormwater development/design standards, including hydromodification management and low impact development standards, established pursuant to the NPDES Municipal Permit. Low impact development design and associated landscaping may serve multiple purposes including reduction of water demand, retention of runoff, reduced flooding and enhanced groundwater recharge. (Modified 2016)

Policy CO-31. Require property owners to maintain all required stormwater measures to ensure proper performance for the life of the project.

Policy CO-105a. Encourage flood management designs that respect the natural topography and vegetation of waterways while retaining flow and functional integrity. (Added 2016)

Policy CO-107. Maintain and protect natural function of channels in developed, newly developing, and rural areas.

Policy CO-114. Protect stream corridors to enhance water quality, provide public amenities, maintain flood control objectives, preserve and enhance habitat, and offer recreational and educational opportunities.

Policy CO-118. Development adjacent to waterways should protect the water conveyance of the system, while preserving and enhancing the riparian habitat and its function.

SACRAMENTO COUNTY STORMWATER AND EROSION CONTROL

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. The Construction General Permit is issued by the State Water Resources Control 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 Water Board prior to construction. The General Permit requires preparation and implementation of a site-specific Stormwater Pollution Prevention Plan (SWPPP) that must be kept on site at all times during construction for review.

Applicable projects applying for a County grading permit must show proof that a NOI has been filed and must submit a copy of the SWPPP. Although the County has no enforcement authority related to the Construction General Permit, the County is required by its Municipal Stormwater Permit (Order Number R5-2008-0142) to verify that the SWPPP program includes six minimum components (public education and outreach on storm water impacts, public involvement participation, illicit discharge detection and elimination, construction site storm water runoff control, post-construction storm water management in new development and redevelopment, and pollution prevention/good housekeeping for municipal operations).

In addition to the above construction controls, new development is required to include treatment of urban runoff using the BMPs required by the current standard defined in the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions, 2014*. The BMPs include a number of options for treatment including simple grassy swales and rain gardens, to more complex systems that use cisterns, pumps, and sand filters. 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/newdevelopment.aspx

Sacramento County Floodplain Management Ordinance

Sacramento County has participated in the National Flood Insurance Program since 1979. A County Floodplain Management Ordinance which meets or exceeds the minimum standards of the Federal Emergency Management Agency (FEMA) is a requirement of such participation. The Floodplain Management Ordinance specifically describes what types of development activities are allowed and how proposed development may be permitted. The purpose of floodplain management is to realize the extent of flood hazards and to manage the flooding in a manner so as to reduce damage to structures and infrastructure and to minimize the risk of human casualties.

All proposed development activity in floodplains -- those areas designated by FEMA on the Flood Insurance Rate Maps for Sacramento County (Community Number 060262) and other areas subject to flooding -- must be reviewed and permitted by the County's Floodplain Administrator (Department of Water Resources) prior to construction.

Sacramento County Environmental Management Department

The Environmental Management Department **Liquid Waste Program** oversees the following activities throughout the County of Sacramento:

- Design, construction, and installation of on-site wastewater treatment systems and wastewater holding tanks.
- Businesses and vehicles engaged in the cleaning of septic tanks, portable toilets, and wastewater holding tanks.
- On-site wastewater processing and or treatment facilities

Significance Criteria

Based on CEQA Guidelines Appendix G, the project would result in a significant impact to hydrology or water quality if it would:

- violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

- substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of

impervious surfaces, in a manner which would result in substantial erosion or siltation on- or offsite;

- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the amount of surface runoff in a manner which would result in flooding on- or offsite;
- create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- impede or redirect flood flows;
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

ISSUES NOT DISCUSSED FURTHER

A discussion of groundwater supply is contained within the Public Services chapter of this document. The project would not result in more than one acre of impervious surfaces and would not interfere with groundwater recharge. Impacts related to ground water supply are ***less than significant***. Please reference Chapter 5 Public Services for further discussion.

Because of the distance from the nearest open waterbody, the Pacific Ocean (more than 100 miles to the west), and the nearest lake, Folsom Lake (more than 37 miles to the north), the project would not be affected by inundation as a result of seiche or tsunami. The project site is flat and there are no steep areas that would have the potential to generate mudflows.

IMPACTS AND ANALYSIS

IMPACT: 100-YEAR FLOODPLAIN

The project is located within a FEMA “Zone X”(outside the 100-year floodplain) area and will not place structures in a FEMA designated floodplain or flood hazard area. County Department of Water Resources (DWR) staff (Michel Meaney) provided correspondence on July 20, 2017, confirming that:

- the project is located within a FEMA “Zone X”;
- The parcel may be part of a local floodplain. Additional review would be needed to determine the flood elevation, if any;

- an existing drainage easement along the north property boundary is located over an existing drainage ditch;
- existing drainage control is located at the centerline of Valensin Road at a drainage culvert (crossing north to south), approximately 1,400 feet west of the parcel.

DWR indicate that while the parcel is outside the FEMA floodplain, it may be within a more localized floodplain. Flood elevations would be determined during plan review and before issuance of building permits. DWR placed a condition of approval upon the project, that minimum pad/floor elevations would be required pursuant to the Sacramento County Floodplain Management Ordinance. Compliance with the Floodplain Management Ordinance will minimize any impacts due to drainage from the project site; drainage impacts that could result in on- and/or off-site flooding are ***less than significant.***

IMPACT: CREATE OR CONTRIBUTE RUNOFF WHICH WOULD EXCEED THE CAPACITY OF EXISTING OR PLANNED STORMWATER DRAINAGE SYSTEMS OR PROVIDE SUBSTANTIAL ADDITIONAL SOURCES OF POLLUTED RUNOFF

In California, primate waste is not classified as biohazardous and is disposed as regular waste by typical commercial waste management contractors. A letter from the California National Primate Research Center at UC, Davis stated:

> "Neither the California Department of Public Health nor California Occupational Health and Safety Administration classifies non-human primate waste as medical or biohazardous waste unless the animal is either experimentally infected or suspected, by a veterinarian, to be infected with a pathogen that could be transferred to humans (zoonosis).
>
> The plan to contain monkey waste, i.e., feces and urine soiled materials (e.g., wood shavings, wood mulch straw/hay), in regular heavy-duty plastic bags and disposing it as regular waste in a container provided and removed by a commercial waste company is appropriate for this squirrel monkey population.
>
> In the unlikely event a monkey is diagnosed with a zoonosis, the SMH zoonotic disease prevention plan states appropriately that this waste would be treated as biohazardous when deemed necessary be veterinarians. Biohazardous medical waste is contained in receptacles provided and collected by commercial medical waste contractors. The staff associated with SMH is experienced to manage such waste appropriately."

Indoor housing would be sanitized weekly. This involves stripping the absorbent bedding (wood shavings) with feces and urine residues out of the cage, rinsing, applying a sanitizer, and then rinsing again. The indoor housing would have a central drain in the cement floor to collect rinse water during cleaning. The rinse water would drain into a dedicated septic system that would be designed by RC Berti Construction of

Wilton with input, permitting, and inspection by Sacramento County Environmental Management Division. The project, therefore, would not exceed the capacity of existing or planned drainage systems and would not contribute polluted runoff to those systems. Impacts are considered ***less than significant.***

Impact: Water Quality

As discussed in the regulatory framework section of this chapter, there are local ordinances that must be complied with during construction. The Stormwater Ordinance prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance systems and local creeks. In addition, the Land Grading and Erosion Control Ordinance requires private construction sites disturbing one or more acres or moving 350 cubic yards or more of earthen material to obtain a grading permit.

Correspondence from the State Regional Water Quality Control Board (Muhl) stated:

> "We reviewed the information submitted to us by the Sacramento County Planning Department and reviewed the plan and other information you submitted to our office via email. Based on the information submitted we have no current water quality concerns with the Squirrel Monkey Haven project."

The Sacramento County Environmental Management Department regulates the installation of septic systems and will be responsible for reviewing the plans and specifications for the proposed new system to be installed on-site. Generally, new septic systems must meet certain setbacks from other sources of water (e.g., wells, ponds, drainages). Current regulations indicate that a septic tank must be at least 100-feet from a well, 50 feet from a pond, and 50-feet from a drainage or stream. The proposed septic system would be able to achieve these setback requirements.

The project involves minimal grading of less than 1 acre and less than 350 cubic yards of material and will not need to secure a grading permit. The new septic system will require review from the County EMD, but appears to be able to achieve required setbacks from other sources of water. Impacts to water quality are considered ***less than significant***.

Post Construction Stormwater Quality

As discussed in the regulatory framework section of this chapter, post-construction stormwater quality measures include, but are not limited to, BMPs, vegetated swales, and water quality detention basins. DWR staff reviewed the proposed project and did not provide conditions requiring the implementation of post construction stormwater quality; however, this does not preclude DWR from requiring stormwater control devices and/or measures later on. DWR will have the opportunity to review and provide additional comment during building improvement plan check. Neither DWR nor RWQCB provided comments or water quality requirements specific to operating a kennel or monkey sanctuary. Impacts to water quality and post-construction are considered ***less than significant***.

Mitigation Measures

No mitigation is required.

5 PUBLIC SERVICES

INTRODUCTION

This chapter describes the utility systems (water, wastewater, solid waste, energy, and telecommunications) and public services (police and fire) serving the project site and identifies the potential impacts that could result from implementation of the project. For more information on surface and groundwater resources relating to the project, see Chapter 4 “Hydrology & Water Quality.”

SETTING

The subject parcel is located outside the Urban Services Boundary, therefore no public water supply or sewer services are currently available. A new private septic system is proposed to coincide with the existing well and septic system.

PRIVATE WELLS

The project site contains an existing well, which serves the existing single-family residence. The proposed facility plan relies on the existing well and indicates 41,000 gallons of water to be used annually, which equates to approximately 112 gallons per day (this estimate is for the Squirrel Monkey facility only).

PRIVATE SEPTIC SYSTEMS

The project site has one existing private septic system that serves the single-family residence. The applicant is proposing one additional septic system to capture runoff during cleaning (rinsing) of the facility; however, the applicant has indicated that monkey excrement will be bagged, placed in a covered bin, and disposed of via Cal-Waste Management Recovery Systems of Galt.

SOLID WASTE SERVICE

Unincorporated area residents south of Calvine Road receive service from Central Valley Waste, a private waste hauling firm, under a contract with Sacramento County Department of Waste Management and Recycling.

ENERGY SERVICES

Sacramento Metropolitan Utility District (SMUD) is responsible for providing electricity, and Pacific Gas and Electric (PG&E) is responsible for providing natural gas in the project area. Electrical and gas utility connections are currently available to service this area.

Fire Protection

The project site is located within the Herald Fire Protection District (HFPD), which provides fire protection and emergency services. The nearest station to the project site is HFPD Station 87 at 12746 Ivie Road, approximately 4.0 miles south. HFPD has an additional station (Station 88) located at 11620 Clay Station Road, approximately 7.0 miles northeast of the project site.

The project site is not located in a state responsibility area and is not located in a California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone.

Law Enforcement

The project site is located within the jurisdiction of the Sacramento County Sheriff's Department. The Sacramento County Sheriff's Department provides general law enforcement services to the unincorporated areas of Sacramento County, as well as the incorporated cities of Rancho Cordova and Isleton. The nearest sheriff's station is the Wilton Service Center, which is located 6.5 miles north of the project site at 7800 Dillard Road.

Regulatory Setting

Federal

USDA Animal Welfare Act

Passed by Congress in 1966, the Animal Welfare Act (AWA) sets general standards for humane care and treatment that must be provided for certain animals that are bred for commercial sale, sold sight unseen (Internet sales), exhibited to the public, used in biomedical research, or transported commercially. Congress assigned the U.S. Department of Agriculture (USDA) the responsibility for enforcing the AWA. The Animal and Plant Health Inspection Service (APHIS) is the agency within USDA responsible for ensuring this occurs. These regulations are included in Appendix F.

State

California Department of Fish and Wildlife Wild Animal Permit

The California Department of Fish and Wildlife requires a Restricted Species Permit for every person who imports, exports, transports, or possesses any restricted animal listed in Section 671(c), Title, 14, of the California Code of Regulations (CCR). These regulations are included in Appendix E.

Local

Sacramento County General Plan Policies

The following policies related to Public Facilities are applicable to the proposed project:

> **Policy PF-13.** Public sewer systems shall not extend service into agricultural-residential areas outside the urban policy area unless the Environmental Management Department determines that there exists significant environmental or health risks created by private disposal systems serving existing development and no feasible alternatives exist to public sewer service.
>
> **Policy PF-14.** Independent community sewer systems shall not be established for new development.

Animal Care and Regulation Wild Animal Permit

In addition to the Use Permit for a kennel, the applicant will be required to obtain a Wild Animal Permit from Sacramento County Department of Animal Care and Regulation pursuant to Section 8.26 of the Sacramento County Code. The Chief of Animal Control shall, with the approval of the Director, set minimum standards for the proper care and maintenance both of a kennel or cattery or a place of keeping of wild animals and of the animals kept therein which are, at a minimum, consistent with applicable State and Federal standards.

The Chief of Animal Control shall conduct investigation of the background of the owner and the applicant and the history and physical condition of the kennel or cattery or the keeping of wild animal, including physical inspection of the premises, as is deemed appropriate. The Chief of Animal Control shall evaluate each application to determine whether the operation of the kennel or cattery or the keeping of the wild animal will involve a risk to the health, safety, or welfare of the public or the animal to be kept.

Each applicant or permit holder must demonstrate that the premises, facilities, cages, vivariums, aquariums and equipment addressed in the permit comply with the Standards on an ongoing basis. Upon request of the Chief of Animal Control, and during normal business hours or by a mutually agreed time for appointment, the applicant or permit holder must make the premises, facilities, cages, vivariums, aquariums and equipment available for inspection by the Chief of Animal Control. All animals to be kept or kept pursuant to the permit shall be subject to visual inspection on the designated premises by the Chief of Animal Control. Failure to allow visual inspection as required shall be deemed failure to comply with the requirements of this chapter and shall be considered cause for denial of application or for revocation of the permit.

If the applicant or permit holder fails to meet the requirements set in the Standards, the Chief of Animal Control shall so notify the applicant or permit holder in writing within three (3) calendar days of discovery of the failure to comply with the Standards. The written notice shall advise the applicant or permit holder of any existing deficiency and the corrective measures that must be taken and completed to bring the premises,

facilities, cages, vivariums, aquariums and equipment into compliance with the Standards.

The applicant or permit holder shall be given no more than thirty (30) calendar days and no less than fourteen (14) calendar days to complete the corrective measures, except that if any deficiency threatens the health or welfare of the animals kept or of the public, such corrective measures shall be made immediately or no later than one day after the discovery of the deficiency.

Failure to correct the noted deficiencies as required shall be deemed failure to comply with the Standards and shall be considered cause for denial of application or for revocation of the permit and may be considered cause for animal nuisance abatement. These regulations are included in Appendix D.

Significance Criteria

The project would have a significant impact on public services and utilities if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new water or wastewater treatment facilities, the construction of which could cause significant environmental effects;
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the expansion of which could cause significant environmental effects;
- Have insufficient water supplies available to serve the project from existing entitlements and resources;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the projected demand in addition to the provider's existing commitments;
- Be served by a landfill without sufficient capacity to accommodate the project's solid waste needs.
- Not comply with federal, state, and local statutes and regulations related to solid waste;
- Adversely affect local and regional energy supplies, requiring additional capacity or depleting energy resources, due to the wasteful, inefficient, or unnecessary consumption of energy; or
- Result in substantial adverse physical impacts associated with the provision of new or physically-altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for
    - Fire protection,
    - Police protection,
    - Schools,
    - Parks, or

  - Other public facilities.
- Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

ISSUES OR POTENTIAL IMPACTS NOT DISCUSSED FURTHER

The project is located outside of the Urban Service Boundaries and would not rely upon public water or public sewage facilities, and therefore could not exceed the capacity of these facilities.

The project is not proposing any new residential construction and would not result in the need for additional demand in fire protection, police protection, schools, or park facilities.

Construction and operation of the project would follow all relevant federal, state, and local statutes and regulations associated with collection and disposal of waste generated at the site; there would be no impact related to violation of solid waste laws and regulations and this topic is not discussed further.

The provision of electrical service to the facility would be provided by the property's existing SMUD service, and would not constitute a significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy. The proposal also does not conflict nor obstruct state or local plans for renewable energy or energy efficiency. SMUD was contacted about the proposed project and had no comments to offer.

IMPACTS AND ANALYSIS

IMPACT: EFFECTS TO WATER SUPPLY

The applicant is proposing to use the existing private well on the property for the proposed facility's operations. The proposed facility plan estimates 41,000 gallons of water will be used annually (112 gallons per day) for facility needs including monkey drinking water, cleaning, and landscaping. On average, each person in a household uses about 100 gallons of water a day. Sacramento County Environmental Management Department (EMD) has reviewed the proposed project and concluded that the existing well is adequate to serve the existing home and the proposed monkey sanctuary. EMD also evaluated the location of the facility from adjacent well sites and indicated that the proposed facility met all required setbacks. Impacts related to groundwater supply are ***less than significant***.

IMPACT: WASTEWATER TREATMENT

Table PS-1 compares the estimated fecal and urine outputs of the 51 squirrel monkeys to one human and one adult horse.

Table PS-1: Comparison of Fecal and Urine Output

	Estimated daily urine output (gal)	Estimated daily feces output (lb)	Estimated daily water intake (gal)
51 squirrel monkeys (values are totals for all 51 monkeys; 98 lbs total)	0.8	0.8	1.8
One adult human	0.4	0.3	0.5
One adult horse 1,000 lb	2.4	37.0	6.0

The 51 squirrel monkeys daily output of urine would be equivalent to 2 humans and 1/4th of what a horse would produce. Fecal output would be nearly equivalent to 3 humans and slightly less than 1/37th of what a horse would produce.

A dedicated septic system will be constructed to capture all effluent from the project site. The proposed septic system will be constructed to County standards and is subject to inspection by EMD. EMD reviewed the proposed location and determined that it meets setbacks from the existing well and from those on the neighboring properties. Compliance with County standards will ensure that impacts related to the proposed septic system remain ***less than significant***.

IMPACT: EFFECTS TO SOLID WASTE FACILITIES

Absorbent bedding (e.g. wood shavings) would be used indoors on the cement floor of each cage to trap and deodorize feces and urine. Soiled bedding would be removed daily and all bedding would be removed weekly and refreshed after cages are sanitized. Outdoor habitats would be mulched and soiled areas cleaned and refreshed twice weekly. Soiled bedding/mulch and animal waste would be put in heavy-duty plastic bags and disposed of in a commercial waste bin that has a heavy securable cover. The bin will be stored next to the facility and will be picked up weekly by Cal-Waste Management Recovery Systems of Galt. Cal-Waste has confirmed that they will schedule weekly pick-up to coordinate with building cleaning days such that waste will be picked up within 24 hours of weekly cleaning days.

According to correspondence from the Global Federation of Animal Sanctuaries and UC Davis, the State of California does not consider primate waste biohazardous and does not require it to be handled as biohazardous medical waste (refer to Appendix L and M).

Waste can be handled and disposed as regular waste by typical commercial waste management contractors.

The California Department of Resources Recycling and Recovery (CalRecycle) provides estimated solid waste generation rates for various sources. Data from the CalRecycle website indicates 10 pounds per day for single-family homes (CalRecycle 2013). The expected fecal output from the monkeys is 0.8 pounds per day, which would result in a monthly output of 24 pounds a month. This increase in solid waste would not fill a substantial proportion of the available permitted capacity at Keifer Landfill and would not result in the need to expand or construct new landfill facilities. Impacts to solid waste facilities would be ***less than significant.***

Impact: Police Services

The Sacramento County Sheriff's Department Subdivision and Project Review representative conducted a review and assessment of the project planning documents associated with the project. The Sheriff's Department provided the following conditions pursuant to the Sacramento County Zoning Code and Crime Prevention through Environmental Design standards:

- Approved numbers or addresses shall be placed on all new or existing buildings in such a position as to be easily read from the street or road fronting the property. The minimum size of the numbers shall not be less than six (6) inches and shall be mounted immediately adjacent to a light source and shall also contrast with their background.

- Applicant shall comply with the Sacramento County Emergency Alarm Ordinance prior to the installation of any alarm system as specified in Sacramento County Code 9.96.085. Additional details about the county alarm ordinance can be obtained by contacting the Sacramento County Sheriff's Department Alarm Ordinance Bureau at (916) 874-4616 or e-mail to: **alarms@sacsheriff.com**.

- Applicant shall comply with the Sacramento County Gate Permit requirements as outlined in Sacramento County Code 17.04, Section 503.6.1 for any gate installations subject to this code.

- Applicant shall amend their ***Emergency Prevention and Action Plan*** to include **immediate notification** of the Sacramento County Sheriff's Department in the event of a missing or escaped monkey. Additionally, this plan shall also be amended to provide notification to the Sacramento County Sheriff's Department of the return or capture of any monkey reported as missing or escaped.

The Sheriff expressed no other concerns with the facility or the plans for operation. Impacts to police services are considered ***less than significant.***

Impact: Animal Control Services

The Director of Sacramento County Animal Control and Regulation, David Dickinson, was contacted about the project and indicated that a Wild Animal permit would be required. Mr. Dickinson indicated that a Wild Animal permit would not be granted until after the inspection of the facility; therefore, such inspection could not take place until a Use Permit is approved for the facility. He also indicated that he "…did not anticipate any problems as long as they do not deviate from the proposed plans" and that …"prior to populating the facility with the Monkeys we would need documentation for each animal including medical history with vaccinations."

The facility would be subject to regular inspections from the Department of Animal Control and Regulation. Should the Director determine that the facility is not in compliance with the permit, the applicant will be given the opportunity to correct any violations, or the permit may be revoked and the facility would need to be vacated. The Director has indicated that if the facility is in compliance he sees no detrimental impacts associated with it. Impacts associated with provision of Animal Care services are, therefore, considered ***less than significant.***

Mitigation Measures

No mitigation is required.

6 TRAFFIC/CIRCULATION

INTRODUCTION

This chapter evaluates the impacts on the vehicular components of the transportation system that may result from implementation of the project. The existing traffic and transportation setting and regulatory framework are described and the impacts of implementing the project are identified and assessed.

SETTING

The project site is located at the terminus of North Valensin Road in the unincorporated Southeast Area community. North Valensin Road is a private road serving eight parcels.

ROADWAY SYSTEM

North Valensin Road is a west-east private roadway/access easement that extends approximately 0.40 miles from its intersection at Colony Road. The western portion of this intersection is the terminus of Valensin Road (further discussion below). N. Valensin Road is a single-lane, paved road.

Colony Road predominantly runs north-south. It begins at Dillard Road and runs south-easterly for 0.65 miles before continuing south for 6.00 miles and terminating at the southern portion of Valensin Road. Colony Road is a public two-lane, paved collector street.

Valensin Road begins where Arno Road intersects itself 3.0 miles west of its intersection at Colony Road; there is also another segment of Valensin Road, located 0.32 miles to the south at the southern terminus of Colony Road. Valensin Road is classified as a collector street and is a public, two-lane roadway that runs west-east.

ACCESS AND PARKING

Access to the property is currently provided by a driveway off N. Valensin Road, which is a private right-of-way serving eight parcels. The access easement for the private roadway does not preclude property owners from operating businesses.

REGULATORY SETTING

LOCAL

SACRAMENTO COUNTY GENERAL PLAN

The Sacramento County General Plan (Sacramento County 2011a) recognizes mobility as an important principle in the development of transportation infrastructure. Mobility

goals of the general plan relate to the need for a network of “complete” streets to enable multi-modal (automobile, transit, pedestrian, and bicycle) forms of transport in all urban, suburban, and rural neighborhoods within the county. Goals and policies for mobility, including roadways, transit, and bicycle and pedestrian facilities that are relevant to the development of the project are listed below.

Policy CI-9. Plan and design the roadway system in a manner that meets Level of Service (LOS) D on rural roadways and LOS E on urban roadways, unless it is infeasible to implement project alternatives or mitigation measures that would achieve LOS D on rural roadways or LOS E on urban roadways. The urban areas are those areas within the Urban Service Boundary as shown in the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service Boundary are considered rural.

Policy CI-10. Land development projects shall be responsible to mitigate the project’s adverse impacts to local and regional roadways.

Policy CI-12. To preserve public safety and local quality of life on collector and local roadways, land development projects shall incorporate appropriate treatments of the Neighborhood Traffic Management Program.

Significance Criteria

Based on the State CEQA guidelines, the project would have a significant impact on traffic and transportation elements if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- 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;
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency response.

ISSUES NOT DISCUSSED FURTHER

The project is located in a rural area of unincorporated Sacramento County. The estimated ten daily trips would not significantly increase hazards or pose a substantial safety risk.

The estimated ten daily trips do not conflict with any ordinances or policies and would not significantly contribute to roadway congestion or impact existing transit facilities.

The project would not have impacts on air traffic, and would not result in incompatible uses in the study area. Impacts related to air traffic are therefore not addressed in this analysis.

IMPACTS AND ANALYSIS

ACCESS AND PARKING

There are no specific parking requirements for kennels in the County Zoning Code; however, Sacramento County Planning and Environmental Review staff reviewed the proposed project and have determined that because the amount of traffic to the site is expected to be minor, due to the nature of the proposed use, the existing driveway and paved areas adjacent to the existing home and barn are adequate to serve the proposed facility. The Building Department will require that an ADA compliant parking space be designated along with an accessible path of travel from the parking area to the kennel be provided. The Building Department requirements will be included as part of the project conditions if the project is approved.

Land Division and Site Improvement Review (LDSIR) staff reviewed the project and had no comments. DOT Staff reviewed the project and provided advisory conditions if additional driveway or gates were proposed in the future.

TRAFFIC GENERATION

A traffic impact study is typically required if any of the following are true:

1. The project will generate 100 or more new a.m. or p.m. peak hour vehicle trip-ends.
2. The project will generate 1,000 or more daily vehicle trip-ends.
3. New project traffic will substantially affect an intersection or a roadway segment already identified as operating at an unacceptable level of service.
4. The project may create a hazard to public safety.
5. The project will substantially change the off-site transportation system or connections to it.

A trip-end is defined as either an origin or destination of a trip. For example, a round trip between two locations (home-shopping) creates two trip-ends at each location.

The a.m. peak hour is defined as the peak consecutive hour during the 7-9 a.m. peak period, and the p.m. peak hour is defined as the peak consecutive hour during the 4-6 p.m. peak period. Both are on a weekday. Special time periods may be required depending on the land use.

As shown in Table TC-1, the project will generate 10 daily trips. In addition, one additional truck trip per week will be generated to accommodate the waste disposal for the facility.

Impacts related to traffic and circulation associated with the proposed project are ***less than significant.*** No further analysis needed.

Table TC-1: Trip Generation Table

Condition	Zoning or Use (Area)	Source	Daily Trip Rate	Daily Trips
Proposed Project	Animal Shelter 2 Employees[1]	Applicant	3.00 VTE/Emp	6
	2 Visitors	Applicant	2.00 VTE/Visitor	4
Total Trips				10

Notes: VTE =Vehicle Trip Ends
Emp=Employee
[1] Assumed 3 Daily trips per employee

MITIGATION MEASURES

No mitigation is required.

7 AIR QUALITY

INTRODUCTION

This chapter summarizes the existing air quality conditions and regulatory framework within or adjacent to the project site, and includes an analysis of potential short- and long-term air quality impacts associated with the project.

ENVIRONMENTAL SETTING

The project site is located in the unincorporated area of Sacramento County, California, which is part of the Sacramento Valley Air Basin (SVAB). The SVAB also includes all of Butte, Colusa, Glenn, Shasta, Sutter, Tehama, Yolo, and Yuba Counties; the western portion of Placer County; and the eastern portion of Solano County.

The ambient concentrations of air pollutant emissions are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below.

CLIMATE AND ATMOSPHERIC CONDITIONS

The SVAB is a relatively flat area bordered by the north Coast Ranges to the west and the northern Sierra Nevada to the east. Air flows into the SVAB through the Carquinez Strait, which is the only breach in the western mountain barrier, and moves across the Sacramento River–San Joaquin River Delta from the San Francisco Bay area.

The Mediterranean climate type of the SVAB is characterized by hot, dry summers and cool, rainy winters. During the summer, daily temperatures range from 50 degrees Fahrenheit (°F) to more than 100°F. The inland location and surrounding mountains shelter the area from much of the ocean breezes that keep the coastal regions moderate in temperature. More than half the total annual precipitation falls during the winter rainy season (November through February); the average winter temperature is a moderate 49°F. Also characteristic of SVAB winters are periods of dense and persistent low-level fog, which are most prevalent between storms.

May through October is ozone season in the SVAB. This period is characterized by poor air movement in the mornings with the arrival of the Delta sea breeze from the southwest in the afternoons. In addition, longer daylight hours provide a plentiful amount of sunlight to fuel photochemical reactions between reactive organic gases (ROG) and oxides of nitrogen (NO_X), which result in ozone formation. Typically, the Delta breeze transports air pollutants northward out of the SVAB; however, a phenomenon known as the Schultz Eddy prevents this from occurring approximately half of the time from July to September. The Schultz Eddy phenomenon causes the wind to shift southward and

blow air pollutants back into the SVAB. This phenomenon exacerbates the concentration of air pollutants in the area and contributes to the area violating the ambient-air quality standards.

The local meteorology of the project site and surrounding area is represented by measurements recorded at the Sacramento station. The normal annual precipitation is approximately 17 inches. January temperatures range from a normal minimum of 38°F to a normal maximum of 54°F. July temperatures range from a normal minimum of 59°F to a normal maximum of 93°F (WRCC 2016). The predominant wind direction and speed is from the south at eight miles per hour (WRCC 2016, 2002).

Air Pollutants and Ambient Air Quality Standards

Criteria Air Pollutants

Concentrations of ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM_{10}), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead are "criteria air pollutants" used as indicators of ambient air quality conditions. Criteria air pollutants are air pollutants for which acceptable levels of exposure can be determined and for which an ambient air quality standard has been set by the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (ARB). Concentrations of emissions from criteria air pollutants are used to indicate the quality of the ambient air. Brief descriptions of key criteria air pollutants, including emission source types and their associated acute and chronic health effects, are summarized in Table AQ-1.

Table AQ-1: Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Ozone	secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO_2)	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO_2)	coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO_2 exposure to chronic health impacts

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Respirable particulate matter (PM_{10}), Fine particulate matter ($PM_{2.5}$)	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO_2 and ROG	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis
Lead	metal processing	reproductive/ developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases.

[1] "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

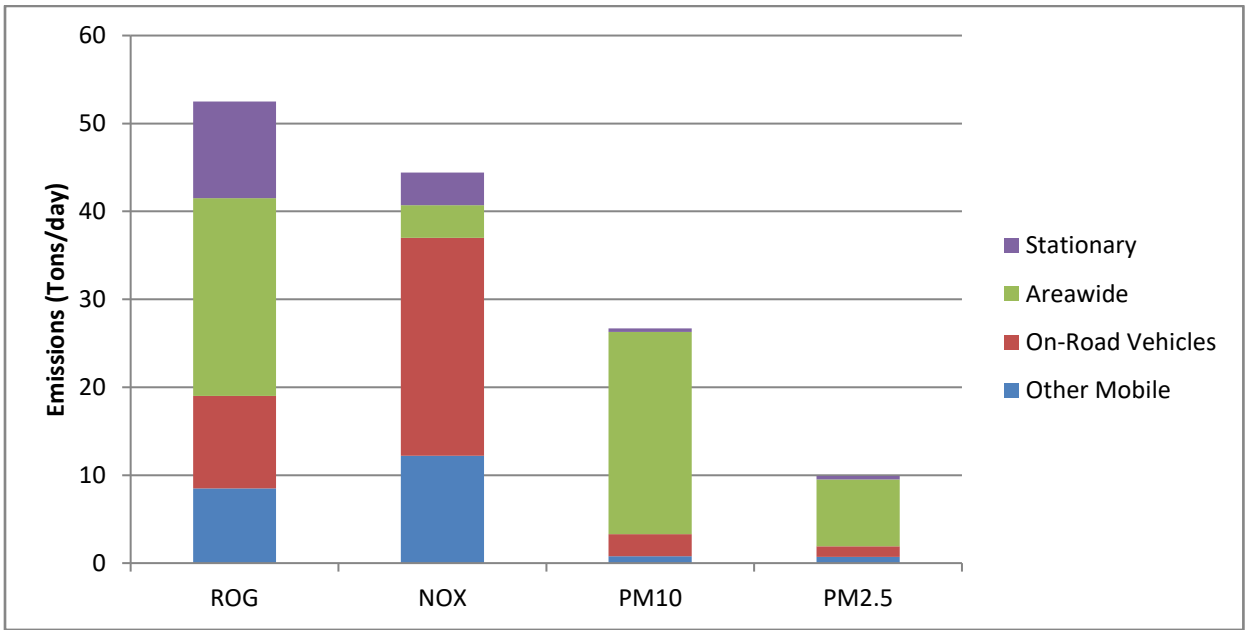
[2] "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Sources: EPA 2016. Data compiled by Ascent Environmental 2016.

Emission Sources

ARB developed an emissions inventory projection for Sacramento County for 2015 (ARB 2013a). The county inventory is generally representative of the types of emissions sources that are included in the county and project area. The county emissions inventory is summarized in Table AQ-2.

Table AQ-2: Criteria Air Pollutants & Precursors (tons per day) Sacramento County 2015



Notes: NO_x = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; ROG = reactive organic gases.

Source: ARB 2013a.

According to the ARB inventory, mobile sources, such as cars and trucks, are the largest contributor to the estimated air pollutant level of sulfur oxides (SO_X), CO, and NO_X, accounting for approximately 50%, 80%, and 83%, of total respective emissions in Sacramento County. Mobile sources account for 36% of ROG emissions. Area sources (e.g., the use of consumer products, residential fuel combustion, architectural coatings and related process solvents, and farming operations) are the largest contributor to ROG emissions at 43%. Stationary sources, such as industrial and manufacturing activities, contribute about 21% of ROG emissions.

Area sources account for approximately 83% and 74% of the county's PM_{10} and $PM_{2.5}$ emissions, respectively, most of which result from construction and demolition, vehicle travel on paved and unpaved roads, and residential fuel combustion activity (ARB 2013a).

Toxic Air Contaminants

Concentrations of toxic air contaminants (TACs) are also used to indicate the quality of ambient air. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. Unlike criteria air pollutants, TACs are pollutants of local concern because they can present harmful effects when they are emitted in close proximity to sensitive receptors. Sensitive receptors are people, or facilities that generally house people (e.g., schools, hospitals, residences), that may experience adverse effects from unhealthful concentrations of air pollutants.

The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most prominent being diesel PM (ARB 2009). In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene. Naturally occurring asbestos (NOA) is also recognized by ARB as a TAC.

Odors

Sacramento Metropolitan Air Quality Management District (SMAQMD) identifies typical land uses that have the potential to result in increases in odorous emissions and provides recommendations for siting new sensitive land uses in close proximity to these land uses. Examples of land uses that have the potential to generate considerable odors include wastewater treatment plants, sanitary landfills, recycling and composting facilities, food packaging plants, petroleum refineries, and chemical manufacturing plants (SMAQMD 2016a). The project area does not include any facilities known to generate considerable odors and no known land uses with the potential to generate considerable odors are located within the screening distances identified by SMAQMD (SMAQMD 2016a).

REGULATORY SETTING

FEDERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

EPA is in charge of implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), enacted in 1970. Congress made the most recent major amendments to the CAA in 1990.

CRITERIA AIR POLLUTANTS

The CAA required EPA to establish national ambient air quality standards (NAAQS). As shown in Table AQ-3, EPA has established primary and secondary NAAQS for the following criteria air pollutants: CO, NO_2, SO_2, respirable and fine particulate matter (PM_{10} and $PM_{2.5}$), and lead. The primary standards protect the public health and the secondary standards protect public welfare. The CAA also required each state to prepare an air quality control plan referred to as a State implementation plan (SIP).

The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

TOXIC AIR CONTAMINANTS/HAZARDOUS AIR POLLUTANTS

Air quality regulations also focus on TACs, which federal agencies refer to as hazardous air pollutants (HAPs). In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts may not be expected to occur. (By contrast, for the criteria air pollutants, acceptable levels of exposure are determinable; Table 7-3 shows the established ambient standards). Instead, EPA and, in California, ARB, regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum available control technology or best available control technology for toxics to limit emissions. These, in conjunction with additional rules set forth by SMAQD, described below under "Sacramento Metropolitan Air Quality Management District," establish the regulatory framework for TACs.

EPA has programs for identifying and regulating HAPs. Title III of the CAAA directed EPA to promulgate National Emissions Standards for HAPs (NESHAP). The NESHAP for major sources may differ from that for area sources of HAPs. Major sources are defined as stationary sources with potential to emit more than 10 tons per year of any HAP or more

than 25 tons per year of any combination of HAPs; all other sources are considered area sources. EPA first developed technology-based emission standards designed to produce the maximum emission reduction achievable. These standards are generally referred to as requiring maximum available control technology for toxics. For area sources, the standards may be different, based on generally available control technology. EPA has also promulgated health risk-based emissions standards when deemed necessary to address risks remaining after implementation of the technology-based NESHAP standards.

Table AQ-3: Ambient Air Quality Standards

Pollutant	Averaging Time	California[a,b]	National[c]	
			Primary[b,d]	Secondary[b,e]
Ozone	1-hour	0.09 ppm (180 µg/m^3)	–[e]	Same as primary standard
	8-hour	0.070 ppm (137 µg/m^3)	0.075 ppm (147 µg/m^3)	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	Same as primary standard
	8-hour	9 ppm[f] (10 mg/m^3)	9 ppm (10 mg/m^3)	
Nitrogen dioxide (NO_2) [g]	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	53 ppb (100 µg/m^3)	Same as primary standard
	1-hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	—
Sulfur dioxide (SO_2	24-hour	0.04 ppm (105 µg/m^3)	—	—
	3-hour	—	—	0.5 ppm (1300 µg/m^3)
	1-hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	—
Respirable particulate matter (PM_{10})	Annual arithmetic mean	20 µg/m^3	—	Same as primary standard
	24-hour	50 µg/m^3	150 µg/m^3	
Fine particulate matter ($PM_{2.5}$)	Annual arithmetic mean	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
	24-hour	—	35 µg/m^3	Same as primary standard
Lead [g]	Calendar quarter	—	1.5 µg/m^3	Same as primary standard
	30-Day average	1.5 µg/m^3	—	—
	Rolling 3-Month Average	–	0.15 µg/m^3	Same as primary standard
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m^3)	No national standards	
Sulfates	24-hour	25 µg/m^3		
Vinyl chloride [f]	24-hour	0.01 ppm (26 µg/m^3)		
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km		

Notes: µg/m^3 = micrograms per cubic meter; km = kilometers; ppb = parts per billion; ppm = parts per million.

[a] California standards for ozone, SO_2 (1- and 24-hour), NO_2, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] Concentration expressed first in units in which it was issued. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[c] National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. The PM_{10} 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. The $PM_{2.5}$ 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. Environmental Protection Agency for further clarification and current federal policies.

[d] National primary standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[e] National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[f] The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Source: ARB 2015

STATE

CALIFORNIA AIR RESOURCES BOARD

ARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required ARB to establish California ambient air quality standards (CAAQS).

CRITERIA AIR POLLUTANTS

ARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases, the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to achieve and maintain the CAAQS by the earliest date practical. The act specifies that local air districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources, and provides air districts with the authority to regulate indirect sources.

TOXIC AIR CONTAMINANTS/HAZARDOUS AIR POLLUTANTS

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for ARB to designate substances as TACs. Research, public participation, and scientific peer review are required before ARB can designate a substance as a TAC. To date, ARB has identified more than 21 TACs and

adopted EPA's list of HAPs as TACs. Most recently, PM exhaust from diesel engines (diesel PM) was added to ARB's list of TACs.

Once a TAC is identified, ARB adopts an airborne toxics control measure for sources that emit that particular TAC. If a safe threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate best available control technology for toxics to minimize emissions.

ARB has adopted diesel exhaust control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of ARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be 85 percent less in 2020 than in the year 2000. Adopted regulations are also expected to continue to reduce formaldehyde emissions from cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

Local

Sacramento County Attainment Status

As described above, EPA and ARB adopted NAAQS and CAAQS to regulate air quality within air basins in the state and nation. Both agencies make determinations about the status of each air basin relative to these standards, known as attainment designations. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are "nonattainment," "attainment," and "unclassified." Nonattainment areas are areas that do not meet air quality standards, whereas attainment areas meet air quality standards. "Unclassified" is used in areas that cannot be classified on the basis of available information as meeting or not meeting the NAAQS or CAAQS.

The most current National and California attainment designations for Sacramento County are shown in Table AQ-4, below, for each criteria air pollutant. Sacramento County is in nonattainment status for the following pollutants:

- Ozone: CAAQS and NAAQS standards,
- PM_{10}: CAAQS standard, and
- $PM_{2.5}$: NAAQS Standard.

Table AQ-4: Attainment Status Designations for Sacramento County

Pollutant	Federal Standard	State Standard
Ozone	Nonattainment (1-hour)[1] Classification = Severe	Nonattainment (1-hour) Classification = Serious[2]
	Nonattainment (8-hour)[3] Classification = Severe	Nonattainment (8-hour)
	Nonattainment (8-hour)[4] Classification = Severe	
Respirable particulate matter (PM_{10})	Attainment (24-hour)	Nonattainment (24-hour)
		Nonattainment (Annual)
Fine particulate matter ($PM_{2.5}$)	Nonattainment (24-hour) Classification = Moderate	(No State Standard for 24-hour)
	Unclassified/Attainment (Annual)	Attainment (Annual)
Carbon monoxide (CO)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (8-hour)	Attainment (8-hour)
Nitrogen dioxide (NO_2)	Unclassified/Attainment (1-hour)	Attainment (1-hour)
	Unclassified/Attainment (Annual)	Attainment (Annual)
Sulfur dioxide (SO_2)[5]	Attainment (1-hour)	Attainment (1-hour)
		Attainment (24-hour)
Lead (Particulate)	Unclassified/Attainment (3-month rolling average)	Attainment (30 day average)
Hydrogen Sulfide	No Federal Standard	Unclassified (1-hour)
Sulfates		Attainment (24-hour)
Visibly Reducing Particles		Unclassified (8-hour)

Notes: EPA designates areas as "unclassified/attainment" if they meet the standard or are expected to meet the standard despite a lack of monitoring data.

[1] Air Quality meets Federal 1-hour Ozone standard (77 FR 64036). U.S. EPA revoked this standard, but some associated requirements still apply. SMAQMD attained the standard in 2009. SMAQMD has requested EPA recognize attainment to fulfill the requirements.

[2] Per Health and Safety Code (HSC) § 40921.5(c), the classification is based on 1989 – 1991 data, and therefore does not change.

[3] 1997 Standard.

[4] 2008 Standard.

[5] Cannot be classified.

Sources: SMAQMD 2013b; Data compiled by Ascent Environmental 2016.

Sacramento Metropolitan Air Quality Management District

SMAQMD is the primary agency responsible for planning to meet federal and State ambient air quality standards in Sacramento County. SMAQMD works with other local air districts in the Sacramento region to maintain the region's portion of the SIP for ozone. The SIP is a compilation of plans and regulations that govern how the region and State will comply with the CAA requirements to attain and maintain the federal ozone standard. Ozone plans in the Sacramento Metro region include the 1994 Sacramento Area Regional Ozone Attainment Plan and the 2016 8-Hour Ozone Attainment and Reasonable Further Progress Plan (SMAQMD 2016). These plans were produced to develop a strategy to attain the federal one-hour and eight-hour ozone standards. The Sacramento Region has been designated as a "severe" eight-hour ozone nonattainment area with an extended attainment deadline of June 15, 2019 (SMAQMD 2016).

Additionally, SMAQMD has developed a set of CEQA guidelines for use by lead agencies when preparing environmental documents. The guidelines contain thresholds of significance for criteria pollutants and TACs, and also make recommendations for conducting air quality analyses. Once SMAQMD guidelines have been consulted and the air quality impacts of a project have been assessed, the lead agency's analysis undergoes a review by SMAQMD. SMAQMD submits comments and suggestions to the lead agency for incorporation into the environmental document. These guidelines are discussed further below. SMAQMD also enforces air quality regulations, educates the public about air quality, and implements a number of programs to provide incentives for the replacement or retrofit of older diesel engines and to influence land use development in Sacramento County.

All projects are subject to adopted SMAQMD rules and regulations in effect at the time of construction (SMAQMD 2016). Specific rules applicable to the construction of the project may include the following:

> **Rule 201: General Permit Requirements.** Any project that includes the use of equipment capable of releasing emissions to the atmosphere may be required to obtain permit(s) from SMAQMD before equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact SMAQMD early to determine whether a permit is required, and to begin the permit application process. Portable construction equipment (e.g., generators, compressors, pile drivers, lighting equipment) with an internal combustion engine greater than 50 horsepower must have a SMAQMD permit or ARB portable equipment registration.
>
> **Rule 402: Nuisance.** A person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause or have natural tendency to cause injury or damage to business or property.
>
> **Rule 403: Fugitive Dust.** The developer or contractor is required to control dust emissions from earthmoving activities or any other construction activity to prevent airborne dust from leaving the project site.
>
> **Rule 442: Architectural Coatings.** The developer or contractor is required to use coatings that comply with the content limits for volatile organic compounds specified in the rule.

TOXIC AIR CONTAMINANTS

At the local level, air pollution control or management districts may adopt and enforce ARB control measures. Under SMAQMD Rule 201 ("General Permit Requirements"), Rule 202 ("New Source Review"), Rule 207 ("Federal Operating Permit") and Rule 214 ("Federal New Source Review"), all sources that possess the potential to emit TACs are required to obtain permits from the district. Permits may be granted to these operations

if they are constructed and operated in accordance with applicable regulations, including new-source-review standards and air-toxics control measures. Additionally, under Regulation 9 ("National Emissions Standards for Hazardous Air Pollutants (NESHAPs)"), SMAQMD limits emissions and exposure of specific TACs; for example, Rule 902 ("Asbestos"), is designed to limit the emissions of asbestos into the atmosphere (SMAQMD 2016b). SMAQMD also limits emissions and public exposure to TACs through a number of district programs. SMAQMD prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors.

ODORS

Offensive odors rarely cause any physical harm. They are generally regarded as an annoyance rather than a health hazard. National and California air quality regulations do not contain any requirements for their control. However, odors can severely affect livability and quality of life and manifestations of personal reactions to odors can range from psychological to physiological.

SMAQMD developed Rule 402 to place general limitations on, "...such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or to the public, or which cause, or have a natural tendency to cause, injury or damage to business or property" (SMAQMD 2016b).

Chapter 7 of SMAQMD's *Guide to Air Quality Assessment in Sacramento County* includes guidance on identifying and mitigating potential odor impacts that could result from siting a new odor source near sensitive receptors, or siting a new sensitive receptor near an existing odor source.

SACRAMENTO COUNTY GENERAL PLAN

The goal of the Air Quality Element of the General Plan is to improve air quality to promote the public health, safety, welfare, and environmental quality of the community (Sacramento County 2011). There are 22 air quality-specific policies, including the following policies that may be applicable to the project:

Policy AQ-3. Buffers and/or other appropriate mitigation shall be established on a project-by-project basis and incorporated during review to provide for protection of sensitive receptors from sources of air pollution or odor. The CARB's "Air Quality and Land Use Handbook: A Community Health Perspective," and the AQMD's approved Protocol (Protocol for Evaluating the Location of Sensitive Land uses Adjacent to Major Roadways) shall be utilized when establishing these buffers.

Policy AQ-4. Developments which meet or exceed thresholds of significance for ozone precursor pollutants as adopted by the SMAQMD, shall be deemed to have a significant environmental impact. An Air Quality Mitigation Plan shall be submitted to the County of Sacramento prior to project approval, subject to review and recommendation as to technical adequacy by the Sacramento Metropolitan Air Quality Management District.

Significance Criteria

Per Appendix G of the CEQA Guidelines and SMAQMD's CEQA guidance (SMAQMD 2016a), air quality impacts are considered significant if the project would:

- result in construction-generated criteria air pollutant or precursor emissions that exceed SMAQMD-recommended thresholds of 85 pounds per day (lb/day) for NOX, 80 lb/day and 14.6 tons per year (tons/year) for PM10, or 82 lb/day and 15 tons/year for PM2.5. In addition, all SMAQMD-recommended Basic Construction Emission Control Practices, also known as best management practices (BMPs) shall be implemented to minimize emissions of PM10 and PM2.5; otherwise, the threshold for both PM10 and PM2.5 is 0 lb/day;

- result in a net increase in long-term regional criteria air pollutant or precursor emissions that exceed SMAQMD-recommended threshold of 65 lb/day for ROG and NOX, 80 lb/day and 14.6 tons/year for PM10, or 82 lb/day and 15 tons/year for PM2.5;

- result in long-term operational local mobile-source CO emissions that would violate or contribute substantially to concentrations that exceed the California 1-hour ambient air-quality standard of 20 parts per million (ppm) or the 8-hour standard of 9 ppm;

- result in construction-related TAC emissions that would expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in 1 million or a hazard index greater than 1.0;

- expose sensitive receptors to substantial pollutant concentrations; or

- create objectionable odors affecting a substantial number of people.

Impacts And Analysis

Methodology

Regional and local criteria air pollutant emissions and associated impacts, as well as impacts from TACs, CO concentrations, and odors, were assessed in accordance with SMAQMD-recommended methodologies. The project's emissions are compared to SMAQMD's operational thresholds because of the long-term operational nature of activities on site.

Short-term construction-generated emissions were estimated using the SMAQMD-approved California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program (SCAQMD 2016). CalEEMod is designed to model construction emissions for land use development projects using emission factors developed by ARB, and allows for the input of project-specific information. Modeling was based on project-specific information (e.g., floor surface area, area to be graded, existing parking,

prefabricated building, energy information, two employees' commute, estimated operational water and wastewater), where available; reasonable assumptions based on typical construction activities; and default values in CalEEMod that are based on the project's location and land use type. Construction of the project was assumed to take approximately one month. For a detailed description of model input and output parameters and assumptions, refer to Appendices H and I. Maximum daily operational emissions of criteria air pollutants and precursors were also estimated using CalEEMod, in accordance with SMAQMD guidance. Emissions estimates included long-term operational emissions of ozone precursors (i.e., ROG and NOX) associated with mobile-sources (i.e., trip generation). This modeling incorporated the trip generation rates identified for the project in the trip table that was provided by the Sacramento County Department of Transportation to support the analysis in Chapter 6, "Transportation and Circulation." Emissions from natural gas combustion used for heating were estimated based on the default consumption levels emission factors contained in CalEEMod.

Health risk from project-generated, construction- and operation-related emissions of TACs were assessed qualitatively. This assessment is based on the location from which construction- or operation-related TAC emissions would be generated by the proposed land uses to offsite sensitive receptors, as well as the duration during which TAC exposure would occur.

Similarly, the assessment of odor-related impacts is based on the types of odor sources associated with the land uses that would be developed and their location relative to onsite receptors as subsequent phases are built.

Impact: Result in Short-Term, Construction-Generated Emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ that Exceed SMAQMD-Recommended Thresholds

Initial project construction activities would consist of site preparation, which includes importing 50 cubic yards of gravel to be used to elevate the building pad. The project includes a 2,700 square foot prefabricated, steel building with 18 attached outdoor habitat areas ranging in size from 240 to 288 square feet (~7,800 total square feet). Since the building is prefabricated, the expected construction window is only 30 days.

Construction-related emissions would be temporary in nature and would include site preparation, grading, paving, building construction, and application of architectural coatings. Emissions of NO_X would be primarily associated with off-road (e.g., gasoline- and diesel-powered) construction equipment exhaust. Additional emission sources would include on-road trucks used to haul equipment and materials to and from the site and worker vehicles for commuting. Worker commute trips, off-gassing application of architectural coatings would be the principal sources of ROG, with additional ROG generated by off- and on-road construction equipment. Emissions of fugitive PM_{10} and $PM_{2.5}$ dust would primarily be associated with ground-disturbance activities during site preparation and grading, and may vary as a function of such parameters as soil silt content, soil moisture, wind speed, acreage of disturbance area, and vehicle miles

traveled onsite and offsite. PM_{10} and $PM_{2.5}$ are also contained in vehicle and equipment exhaust.

Construction equipment may include a backhoe, a rubber tire dozer, front-end loaders, generators, and dump trucks, which would be used during excavation for utilities and building foundations. Concrete trucks and concrete pumps would be used to pour foundations and slabs. Forklifts would be used during erection of walls and delivery of materials from storage yards. Minimal import of 50 cubic yards of gravel to elevate the building pad. An additional 25 cubic yards of decomposed granite will be placed in the outdoor habitat areas.

Construction related emissions were estimated using CalEEMod and are summarized in Table AQ-5. Refer to Appendix E for detailed modeling input parameters and results.

Table AQ-5: Summary of Construction-Generated Emissions of Criteria Air Pollutants and Precursors

Construction Year	Emissions[1]			
	ROG[3]	NO_X	PM_{10}	$PM_{2.5}$
	lb/day	lb/day	lb/day	lb/day
2019	72.58	11.75	1.31	0.93
Threshold of Significance[2]	NONE	85	85	82

Notes: lb/day = pounds per day; ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less;

[1] Emissions estimates do not account for reductions that would result from compliance with SMAQMD-recommended BMPs.

[2] If all applicable SMAQMD-recommended BMPs are not implemented, then the threshold of significance for emissions of PM_{10} and $PM_{2.5}$ is zero.

[3] SMAQMD does not have an established construction threshold of significance for ROG. ROG emissions are disclosed for informational purposes only.

Refer to Appendix E for detailed assumptions, modeling parameters, and output files.

As shown in Table AQ-5, construction-generated emissions of NO_X would not exceed the SMAQMD threshold of significance. Because construction-generated emissions of PM_{10} and $PM_{2.5}$ would not exceed the applicable adopted mass emissions thresholds adopted by SMAQMD, construction-generated emissions of PM_{10} and $PM_{2.5}$ would not contribute to a localized exceedance of the CAAQS and NAAQS for of PM_{10} and $PM_{2.5}$ or contribute to the nonattainment status of the SVAB with respect to the CAAQS for PM_{10} and the NAAQS for $PM_{2.5}$; therefore, this impact would be **less than significant**.

Impact: Result in Long-term, Operational Emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$ that Exceed SMAQMD-Recommended Thresholds

Once a project is completed, additional pollutants are emitted through the use, or operation, of the site. Land use development projects typically involve the following sources of emissions: motor vehicle trips generated by the land use; fuel combustion from landscape maintenance equipment; natural gas combustion emissions used for

space and water heating; evaporative emissions of ROG associated with the use of consumer products; and, evaporative emissions of ROG resulting from the application of architectural coatings.

Ultimately, a project typically must have large acreages or intense uses in order to result in significant operational air quality impacts. For ozone precursor emissions the screening table in the SMAQMD Guide allows users to screen out projects. Because this project involves a use that is not specifically listed in the SMAQMD screening table the California Emissions Estimator Model (CalEEMod) was used to model project emissions (Appendix E). Based on the unique characteristics of the proposed monkey sanctuary, PER staff consulted with SMAQMD staff regarding the appropriate land use classification and variables to use in the model.

Table AQ-6: CalEEMod Operational (long-term) Emissions

Emissions Source	Emissions			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
	lb/day	lb/day	lb/day	lb/day
Area Source	<1	<1	<1	<1
Natural Gas Combustion	<1	<1	<1	<1
Mobile Source (Vehicle Trips)	<1	<1	<1	<1
Total	**0.39**	**1.06**	**0.69**	**0.20**
Threshold of Significance[2]	NA	65	85	82

Notes: lb/day = pounds per day; ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less;

Refer to Appendix E for detailed assumptions and modeling output files.

As shown Table AQ-6, the operational emissions would not exceed SMAQMD-adopted daily or annual mass emission thresholds for ROG (precursor to ozone), NOX, and PM10 and PM2.5. Therefore, operational emissions of criteria air pollutants and precursors would not contribute considerably to the nonattainment status of the SVAB with respect to the CAAQS and NAAQS for ozone, the CAAQS for PM10, or the NAAQS for PM2.5. Moreover, operational emissions of PM10 and PM2.5 would not contribute to localized concentrations of PM10 and/or PM2.5 that would exceed or contribute to an exceedance of the CAAQS or NAAQS. As a result, this impact would be ***less than significant***.

IMPACT: RESULT IN LONG-TERM, OPERATIONAL MOBILE-SOURCE CO CONCENTRATIONS THAT EXCEED AIR QUALITY STANDARDS DUE TO INCREASED TRAFFIC

Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, speed, and delay. Transport of CO is extremely limited because it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain specific meteorological conditions, CO concentrations near

roadways and/or intersections may reach unhealthy levels at nearby sensitive land uses, such as residential units, hospitals, schools, and childcare facilities. As a result, it is recommended that CO not be analyzed at the regional level, but at the local level.

Project-generated traffic would be associated with the operational phase. According to Sacramento County Department of Transportation, the project is anticipated to generate ten daily trips.

SMAQMD provides a screening methodology to determine project impacts from localized CO emissions. This screening methodology was utilized to analyze local CO emissions from the construction and operation of this project. The screening methodology has two tiers of screening criteria, as summarized below. If the first set is not met, then the second tier may be applied (SMAQMD 2016a).

First-Tier

The project would result in a less-than-significant impact to air quality for local CO if:

- Traffic generated by the project would not result in deterioration of intersection level of service (LOS) to LOS E or F; and
- The project would not contribute additional traffic to an intersection that already operates at LOS of E or F.

Second-Tier

If a project does not comply with the first-tier criteria, but all of the following criteria are met, the project would result in a less-than-significant impact to air quality for local CO.

- The project would not result in an affected intersection experiencing more than 31,600 vehicles per hour;
- The project would not contribute traffic to a tunnel, parking garage, bridge underpass, urban street canyon, or below-grade roadway; or other locations where horizontal or vertical mixing of air will be substantially limited; and
- The mix of vehicle types at the intersection would not anticipated to be substantially different from the County average (as identified by the EMFAC or CalEEMod models).

Ten daily trips would not result in, or substantially contribute to, concentrations that exceed the 1-hour or 8-hour CAAQS and NAAQS for CO. As a result, this impact would be ***less than significant***.

Impact: Expose Sensitive Receptors to TACs

The exposure of sensitive receptors (e.g., existing and future offsite residents) to TAC emissions from project-generated construction and operational sources, as well as

exposure of the new residential receptors proposed by the project, are discussed separately below.

Short-Term Construction-Related TAC Emissions

Construction-related activities would result in temporary, short-term project-generated emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing and grading); paving; application of architectural coatings; and other miscellaneous activities.

Particulate exhaust emissions from diesel-fueled engines (i.e., diesel PM) were identified as a TAC by the ARB in 1998. The potential cancer risk from the inhalation of diesel PM outweighs the potential for all other health impacts (ARB 2003). Acute and chronic exposure to non-carcinogens is expressed as a hazard index, which is the ratio of expected exposure levels to an acceptable reference exposure levels. Based on the construction emission estimates presented in Table AQ-5 above, maximum daily exhaust emissions of PM_{10}, considered a surrogate for diesel PM, could reach up to 1.31 lb/day during construction.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), HRAs, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2012:11-3). Consequently, it is important to consider that the use of off-road heavy-duty diesel equipment would be limited to the construction period, with peak activity occurring for approximately one year. Also, studies show that diesel PM is highly dispersive (e.g., decrease of 70 percent at 500 feet from the source) (Zhu et al. 2002).

Therefore, considering the highly dispersive properties of diesel PM, the low mass of diesel PM emissions that would be generated during project construction, and the relatively short duration of construction activities, construction-related TAC emissions would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in 1 million or a hazard index greater than 1.0.

Long-Term Operational TAC Emissions

The project would not include the long-term operation of sources of diesel PM, except for occasional waste collection services, which is typical in residential areas. The project also would not include any land uses that would harbor large, backup diesel generators; therefore, operation of the project would not expose the existing nearby residential receptors to TAC concentrations atypical of single-family home neighborhoods.

Exposure of the Proposed Project to TAC Emissions

The proposed land use that would be developed by the project would not be considered sensitive receptors in the context of TAC emissions. The project site is not located in close proximity to permitted stationary sources of TACs. It's also not located within 500 feet of a freeway or high-volume roadway, which is the setback distance recommended in ARB and beyond which substantial exposure to TACs is not anticipated (ARB 2005:4).

Summary

Project-related construction would not expose nearby sensitive receptors to an incremental increase in cancer risk that exceeds 10 in 1 million or a hazard index greater than 1.0, the project would not introduce new stationary sources of TACs, and the project would not be developed in a location where future residents would be exposed to relatively high concentrations of TACs from offsite emission sources. For these reasons, this impact would be ***less than significant***.

Impact: Expose Sensitive Receptors to Odors

The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose a substantial number of members of the public to objectionable odors would be deemed to have a significant impact.

The facility proposes to have up to 51 squirrel monkeys initially; however, the facility is designed to allow for a maximum of 55 monkeys. An evaluation on the amount of urine and waste produced by the proposed facility as compared to humans and livestock such as horses was conducted. As shown in Table AQ-7, the proposed squirrel monkey sanctuary with 51 monkeys will produce significantly less waste than a single adult horse and about the same amount of urine as two adult humans and as much feces as three adult humans (at maximum capacity the change in waste output is negligible).

Table AQ-7: Comparison of Waste Outputs

	Estimated daily urine output (gal)	Estimated daily feces output (lb)
51 squirrel monkeys (value is total)	0.6	0.8
One adult human	0.4	0.3
One adult horse (1,000 lb)	2.4	37.0

The applicant has developed an odor control program to ensure that odors are minimized and will not result in a public nuisance. The plan includes the following:

- Absorbent bedding (e.g. wood shavings) would be used indoors on the cement floor of each cage to trap and deodorize feces and urine. Soiled bedding would be removed daily and all bedding would be removed weekly and refreshed after cages are sanitized.

- Indoor caging, floors, and walls would be cleaned and deodorized weekly with a sanitizing solution (e.g. Rescue).

- Outdoor habitats would be mulched and soiled areas cleaned and refreshed twice weekly.

- Aisles in the building would be swept and mopped daily with 1:32 bleach solution to keep area clean and prevent odors.

- Soiled bedding/mulch and animal waste would be put in heavy-duty plastic bags and disposed of in a commercial waste bin that has a heavy securable cover to prevent animal entry and odor escape. The bin will be stored next to the monkey housing area and will be picked up weekly by Cal-Waste Recover of Galt. Cal-waste has confirmed that they will schedule weekly pick-up to coordinate with building cleaning days such that waste will be picked-up within 24 hours of weekly cleaning days. No special handling of the waste is required.

- All effluent from the facility would be directed to the dedicated septic system for the facility.

Based on the small amount of urine and waste that will be produced by the monkeys at the facility along with implementation of the odor control plan potential impacts associated with Odor are considered ***less than significant.***

Mitigation Measures

None required.

8 NOISE

Introduction

This chapter summarizes the fundamentals of acoustic analysis, existing receptors and ambient noise, applicable regulations, and the noise impact analysis conducted for the proposed project.

Setting

The project site is located in a rural, agricultural-residential area of unincorporated Sacramento County. The project site is located on a 5-acre parcel that is currently developed with a single-family residence and accessory structures. All adjacent parcels, with the exception of the east bounding parcel, have similar land use and zoning designations as the subject parcel; these properties are developed with single-family residences and accessory structures. The parcel to the east is zoned Agricultural – 20 Acres (AG-20), has a General Agricultural 20 acres (GA-20) land use designation, and is in agricultural production.

Existing noise in the area is generated by residential traffic, farm animals, and agricultural operations. Sensitive receivers to the proposed projects include surrounding single-family residents.

Fundamentals of Acoustics

Acoustics is the scientific study that evaluates perception, propagation, absorption, and reflection of sound waves. Sound is a mechanical form of radiant energy, transmitted by a pressure wave through a solid, liquid, or gaseous medium. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise. Noise is typically expressed in “decibels” (dB), which is a common measurement of sound energy. Common sources of environmental noise and noise levels are presented in

Table NO-1.

Table NO-1: Typical Noise Levels

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet	100	
Gas lawnmower at 3 feet	90	
Diesel truck moving at 50 mph at 50 feet	80	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, Gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	60	
Quiet urban daytime	50	Large business office, Dishwasher in next room
Quiet urban nighttime	40	Theater, Large conference room (background)
Quiet suburban nighttime	30	Library, Bedroom at night, Concert hall (background)
Quiet rural nighttime	20	Broadcast/Recording Studio
	10	
Threshold of Human Hearing	0	Threshold of Human Hearing

Notes: dB= decibels; mph=miles per hour

Source: California Department of Transportation (Caltrans) 2013a.

SOUND PROPERTIES

A sound wave is initiated in a medium by a vibrating object (e.g., vocal chords, the string of a guitar, the diaphragm of a radio speaker). The wave consists of minute variations in pressure, oscillating above and below the ambient atmospheric pressure. The number of pressure variation cycles occurring per second is referred to as the frequency of the sound wave and is expressed in hertz.

Directly measuring sound pressure fluctuations would require the use of a very large and cumbersome range of numbers. To avoid this and have a more useable numbering system, the dB scale was introduced. A sound level expressed in decibels is the logarithmic ratio of two like pressure quantities, with one pressure quantity being a reference sound pressure. For sound pressure in air the standard reference quantity is generally considered to be 20 micropascals, which directly corresponds to the threshold

of human hearing. The use of the decibel is a convenient way to handle the million-fold range of sound pressures to which the human ear is sensitive. A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly summed. For example, a 65 dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a 100-fold increase in acoustical energy.

The loudness of sound perceived by the human ear depends primarily on the overall sound pressure level and frequency content of the sound source. The human ear is not equally sensitive to loudness at all frequencies in the audible spectrum. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed. The standard weighting networks are identified as A through E. There is a strong correlation between the way humans perceive sound and A-weighted sound levels (dBA). For this reason, the dBA can be used to predict community response to noise from the environment, including noise from transportation and stationary sources. All sound levels expressed as dB in this chapter are A-weighted sound levels, unless noted otherwise.

Noise can be generated by a number of sources, including mobile sources (i.e., transportation) such as automobiles, trucks, and airplanes and stationary sources (i.e., non-transportation) such as construction sites, machinery, and commercial and industrial operations. As acoustic energy spreads through the atmosphere from the source to the receiver, noise levels attenuate (i.e., decrease) depending on ground absorption characteristics, atmospheric conditions, and the presence of physical barriers. Noise generated from mobile sources generally attenuate at a rate of 4.5 dB per doubling of distance. Stationary noise sources spread with more spherical dispersion patterns that generally attenuate at a rate of 6 to 7.5 dB per doubling of distance.

All buildings provide some exterior-to-interior noise reduction. A building constructed with a wood frame and a stucco or wood sheathing exterior typically provides a minimum exterior-to-interior noise reduction of 24 dB with its windows closed (U.S. Environmental Protection Agency [EPA] 1978). Buildings constructed of a steel or concrete frame, a curtain wall or masonry exterior wall, and fixed plate glass windows of 0.25-inch thickness provide an exterior-to-interior noise reduction greater than that of wood frame and a stucco or wood sheathing exterior.

COMMON NOISE TERMINOLOGY

The intensity of environmental noise fluctuates over time, and several different descriptors of time-averaged noise levels are used. The selection of a proper noise descriptor for a specific source depends on the spatial and temporal distribution, duration, and fluctuation of both the noise source and the environment. The noise descriptors most often used in relation to the environment are defined below (Caltrans 2013a).

Equivalent Noise Level (L_{eq}): The equivalent steady-state noise level in a specified period of time that would contain the same acoustic energy as the time-varying noise level during the same period (i.e., average noise level). Because it represents average noise energy, the same L_{eq} value could represent a relatively stable sound source, or a highly variable sound environment.

Minimum Noise Level (L_{min}): The lowest instantaneous noise level during a specified time period.

Maximum Noise Level (L_{max}): The highest instantaneous noise level during a specified time period.

Day-Night Noise Level (L_{dn}): The 24-hour L_{eq} with a 10-dB penalty applied to sounds occurring during the noise-sensitive hours from 10 p.m. to 7 a.m., which are typically reserved for sleeping. The L_{dn} and CNEL (defined below) are the most common noise descriptors used for transportation noise considerations or other noise sources that may occur both during daytime and more noise-sensitive nighttime (during typical relaxation and sleep) hours.

Community Noise Equivalent Level (CNEL): Similar to the L_{dn} described above with an additional 5-dB penalty applied during the noise-sensitive hours from 7 p.m. to 10 p.m., which are typically reserved for relaxation, conversation, reading, and watching television.

EFFECTS OF NOISE ON HUMANS

Excessive and chronic exposure to elevated noise levels can result in auditory and non-auditory effects on humans. Auditory effects of noise on people are those related to temporary or permanent hearing loss caused by loud noises. Non-auditory effects of exposure to elevated noise levels are those related to behavioral and physiological effects. The non-auditory behavioral effects of noise on humans are associated primarily with the subjective effects of annoyance, nuisance, and dissatisfaction, which lead to interference with activities such as communications, sleep, and learning. The non-auditory physiological health effects of noise on humans have been the subject of considerable research attempting to discover correlations between exposure to elevated noise levels and health problems, such as hypertension and cardiovascular disease. The mass of research infers that noise-related health issues are predominantly the result of behavioral stressors and not a direct noise-induced response. The extent to which noise contributes to non-auditory health effects remains a subject of considerable research, with no definitive conclusions.

The degree to which noise results in annoyance and interference is highly subjective and may be influenced by several non-acoustic factors. The number and effect of these non-acoustic environmental and physical factors vary depending on individual characteristics of the noise environment such as sensitivity, level of activity, location, time of day, and length of exposure. One key aspect in the prediction of human response to new noise environments is the individual level of adaptation to an existing noise environment. The greater the change in the noise levels that are attributed to a

new noise source, relative to the environment an individual has become accustom to, the less tolerable the new noise source will be perceived.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000 to 8,000 hertz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a readily noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness. Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely perceptible (Caltrans 2013a:2-45).

Negative effects of noise exposure include physical damage to the human auditory system, interference, and disease. Exposure to noise may result in physical damage to the auditory system, which may lead to gradual or traumatic hearing loss. Gradual hearing loss is caused by sustained exposure to moderately high noise levels over a period of time; traumatic hearing loss is caused by sudden exposure to extremely high noise levels over a short period. Gradual and traumatic hearing loss both may result in permanent hearing damage. In addition, noise may interfere with or interrupt sleep, relaxation, recreation, and communication. Although most interference may be classified as annoying, the inability to hear a warning signal may be considered dangerous. Noise may also be a contributor to diseases associated with stress, such as hypertension, anxiety, and heart disease. The degree to which noise contributes to such diseases depends on the frequency, bandwidth, and level of the noise, and the exposure time.

Regulatory Setting

Federal

The Federal Noise Control Act of 1972

The basic motivating legislation for noise control in the United States was provided by the Federal Noise Control Act (1972), which addressed the issue of noise as a threat to human health and welfare, particularly in urban areas.

State

California State Building Code Title 24

State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, California Building Code. Title 24 is applied to new construction in California and states that interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. An acoustical analysis documenting compliance with the interior sound

level standards shall be prepared for structures containing habitable rooms within the CNEL noise contours of 60-dB or greater.

LOCAL

SACRAMENTO COUNTY GENERAL PLAN

Policy NO-5. The interior and exterior noise level standards for noise-sensitive areas of new uses affected by existing non-transportation noise sources in Sacramento County are shown by Table NO-2. Where the noise level standards of Table NO-2 are predicted to be exceeded at a proposed noise-sensitive area due to existing non-transportation noise sources, appropriate noise mitigation measures shall be included in the project design County of Sacramento General Plan 11 Noise Element Amended December 13, 2017 to reduce projected noise levels to a state of compliance with the Table NO-2 standards within sensitive areas.

Policy NO-6. Where a project would consist of or include non-transportation noise sources, the noise generation of those sources shall be mitigated so as not exceed the interior and exterior noise level standards of Table NO-2 at existing noise-sensitive areas in the project vicinity

Policy NO-8. Noise associated with construction activities shall adhere to the County Code requirements. Specifically, Section 6.68.090(e) addresses construction noise within the County.

Table NO-2: Non-Transportation Noise Standards from the Sacramento County General Plan

Receiving Land Use	Outdoor Area (Median [L_{50}]/Maximum [L_{max}][1,2]		Interior[3]
	Daytime	Nighttime	Day/Night
All Residential	55/75	50/70	35/55
Transient Lodging[4]	55/75	-	35/55
Hospitals & Nursing Homes[5,6]	55/75	-	35/55
Theaters & Auditoriums[6]	-	-	30/50
Churches, Meeting Halls, Schools, Libraries, etc.[6]	55/75	-	35/60
Office Buildings[6]	60/75	-	45/65
Commercial Buildings[6]	-	-	45/65
Playgrounds, Parks, etc.[6]	65/75	-	-
Industry[6]	60/80	-	50/70

Notes: L_{50} = noise level that is exceeded 50% of a given period; L_{max}= the maximum instantaneous noise level

1 Standards in this table shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards of this table, then the noise level standards shall be increased at 5 dB increments to encompass the ambient. Where median (L_{50}) noise level data is not available for a particular noise source, average (L_{eq}) values may be substituted for the standards of this table provided the noise source in question operates for at least 30 minutes of an hour. If the source in question operates less than 30 minutes per hour, then the maximum noise level standards shown would apply.

2 The primary outdoor activity area associated with any given land use at which noise-sensitivity exists and the location at which the County's exterior noise

level standards are applied.

[3] The primary outdoor activity area associated with any given land use at which noise-sensitivity exists and the location at which the County's exterior noise level standards are applied.

[4] Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours.

[5] Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.

[6] Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.

Source: Sacramento County 2011

Sacramento County Noise Control Ordinance

Section 6.68.070 of the Sacramento County Code contains exterior noise standards for specific zoning districts. The project is currently zoned AR-5 (5-acre minimum lots). The lots adjacent to the project site in the County are all zoned for agricultural-residential with between 1-acre minimum lots to 10-acre minimum lots. The exterior noise standards for the zoning districts detailed above is 55 dB between 7 a.m. and 10 p.m. and 50 dB between 10 p.m. and 7 a.m. (please reference Table NO-3)

Table NO-3: Sacramento County Exterior Noise Standards

Cumulative Period of Time (minutes per hour)	Daytime 7:00 a.m. to 10:00 p.m.	Nighttime 10:00 p.m. to 7:00 a.m.
30	55	50
15	60	55
5	65	60
1	70	65
0	75	70

Note: A cumulative duration of 30 minutes in an hour is equivalent to the L_{50} for that hour. Likewise, a cumulative duration of 15 minutes in an hour is equivalent to the L_{25}, a cumulative duration of 5 minutes in an hour is equivalent to the $L_{8.3}$, and a cumulative duration of 1 minute in an hour is equivalent to the $L_{1.6}$. The noise level not to be exceeded at all in a given hour represents the maximum noise level or L_{max}.

SOURCE: Sacramento County, 1987.

Significance Criteria

Based on Appendix G of the State CEQA Guidelines, the project would have a significant noise impact if it would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- Exposure of persons to or generation of excessive groundborne vibration or groundborne or noise levels?

- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

ISSUES NOT DISCUSSED FURTHER

The closest airport to the project site is Lucchetti Ranch Aiport, which is located approximately nine miles to the north. The project would not expose people working in the project area to excessive noise levels from air traffic.

IMPACTS AND ANALYSIS

IMPACT: RESULT IN SUBSTANTIAL CONSTRUCTION-GENERATED NOISE

Section 6.68.090 of the Sacramento County Code provides the following exemption to the exterior noise standards:

Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided said activities do not take place between the hours of 8 p.m. and 6 a.m. on weekdays and Friday commencing at 8 p.m. through and including 7 a.m. on Saturday; Saturdays commencing at 8 p.m. through and including 7 a.m. on the next following Sunday and on each Sunday after the hour of 8 p.m. However, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 8 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner.

Construction noise levels in the vicinity of the project site would fluctuate depending on the particular type, number, and duration of usage for the varying equipment. The effects of construction noise largely depends on the type of construction activities occurring on any given day, noise levels generated by those activities, distances to noise-sensitive receptors, and the existing ambient noise environment in the receptor's vicinity. Construction generally occurs in several discrete stages with varying equipment type, quantity, and intensity. These variations in the operational characteristics of the

equipment change the effect they have on the noise environment of the project site and on the surrounding community for the duration of the construction process.

Construction is expected to begin in Spring 2019. The project does not involve any demolition activities. Since the project site is relatively flat grading would be minimal, if needed. Limited site preparation would involve grubbing/removal of vegetation, the placement of 1,365 cubic feet of gravel and 700 cubic feet of decomposed granite, pouring of concrete pad. The proposed structure is prefabricated, which drastically shortens the construction timeline.

Based on the types of construction activities associated with the project (e.g. hauling, concrete mixing, concrete pours, clearing/grubbing, structure erection) it is expected that the primary sources of noise would be from forklifts, tractors, compressors, pumps, and various trucks (job trucks, concrete trucks, hauling trucks). Reference noise levels of these types of construction equipment are shown in Table NO-4.

Table NO-4: Typical Noise Levels from Construction Equipment

Equipment Type	Typical Noise Level (dB) at 50 feet
Aerial Lifts	85
Air Compressors	80
Concrete Saws	90
Excavators	85
Generator Sets	82
Graders	85
Pavers	85
Plate Compactors	80
Pumps	77
Rollers	85
Dozers	85
Scrapers	85
Tractors/Loaders/Backhoes	80–84
Trucks	74–88

Notes: Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment.

Source: FTA 2006

Noise-sensitive receptors near the construction site would experience elevated noise levels from construction activities. The closest off-site receptors to the project-related construction activities would be the neighboring residential land uses. These receptors would be exposed to the highest levels of construction noise during grubbing and grading activities. Grading and grubbing tend to involve the operation of scrapers and/or

dozers moving about at a steady speed; however, it should be noted that the site preparation is limited and grading may not be necessary.

Noise-generating construction activity would occur between 7:00 a.m. and 7:00 p.m., Monday through Friday. The Sacramento County Code (Section 6.68.090) exempts construction-related noise, provided that construction activity does not occur between 8:00 p.m. and 6:00 a.m. on weekdays. Additionally, no pile driving or blasting would occur during construction. Therefore, construction would not result in the exposure of persons to, or generation of, noise levels in excess of applicable standards. This impact would be ***less than significant***.

Impact: Result in Construction-Generated Ground Vibration at Nearby Sensitive Land Uses

Construction activities generate varying degrees of ground vibration, depending on the specific construction equipment used and activities involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and high levels of vibration can cause sleep disturbance in places where people normally sleep or annoyance in buildings that are primarily used for daytime functions and sleeping.

As described in above, proposed construction activities would may require on-site heavy-duty construction equipment for grubbing and possibly grading. Table NO-5 shows the maximum ground vibration levels generated by the types of equipment (and activities) that would be used during construction of the project. Construction-related ground vibration is normally associated with impact equipment such as pile drivers, blasting, and the operation of some heavy-duty construction equipment, such as dozers and trucks; however, no pile driving or blasting would be performed during project construction.

Table NO-5: Representative Ground Vibration and Noise Levels for Construction Equipment

Equipment	PPV at 25 feet (in/sec)[1]	Approximate L_v (VdB) at 25 feet[2]
Large Dozer	0.089	87
Loaded Trucks	0.076	86
Small Dozer	0.003	58

Notes: PPV = peak particle velocity; L_V = the root mean square velocity expressed in vibration decibels (VdB), assuming a crest factor of 4

Source: FTA 2006

As shown in Table NO-5, the maximum ground vibration level generated by a large dozer is 0.089 in/sec PPV and 87 VdB at 25 feet. The use of a large dozer would not exceed the Caltrans recommended level of 0.2 in/sec PPV with respect to structural

damage, as the noted vibration level at 25 feet is substantially below 0.2 in/sec PPV. Further, multiple dozers are generally not used in close proximity for safety reasons. No structures are located within 25 feet of the project site boundary; therefore, the exposure at the closest buildings from a large dozer would be less than the Caltrans recommended level of 0.2 in/sec PPV.

With respect to human disturbance, the use of a large dozer would exceed the Federal Transportation Agency's maximum acceptable level of 80 VdB within 40 feet of dozing activity. The existing structure nearest to where construction would occur is beyond 40 feet from the project site boundary. Thus, construction activities performed by dozers would not occur within 40 feet of existing structures and therefore, vibration levels would not exceed the Federal Transportation Agency's maximum acceptable level for human annoyance of 80 VdB; therefore, construction that would occur on project site would not result in the exposure of any sensitive receptors or structure to excessive vibration levels. This impact would be ***less than significant***.

Impact: Substantial Increase (Temporary, Periodic, or Permanent) in Ambient Noise Levels

The existing noise environment in the project vicinity is defined by noise sources typical in a rural setting. Noise sources contributing to measured ambient noise levels consisted of wind blowing through grass, wildlife, insects, birds, and intermittent traffic on North Valensin Road. To quantify existing background noise levels in the project vicinity, long-term ambient noise level measurements were conducted on the project site from Saturday, July 8 through Monday, July 10, 2017, by Bollard Acoustical Consultants, Inc. Ambient noise level monitoring was conducted along the southern property line (reference Plate NO-1). Table NO-6 summarizes the measured ambient noise levels (please reference Appendix D for the complete Noise Study).

Table NO-6: Measured Ambient Noise Level Summary

		Measured Noise Levels (dBA)			
		Daytime (7 AM to 10 PM)		Nighttime (7 AM to 10 PM)	
Site[1]	Date	L_{50}	L_{max}	L_{50}	L_{max}
1	Saturday, July 8, 2017	44	58	58	62
	Sunday, July 9, 2017	45	60	57	62
	Monday, July 10, 2017	45	57	55	65
	Average:	45	58	57	63
Sacramento County Standards (Table 1):		55	75	50	70

Notes:
1. Ambient noise level monitoring was conducted along the southern property line. Location is shown on Figure 1.

Plate NO-1: Noise-Sensitive Locations and Ambient Noise Measurement Location

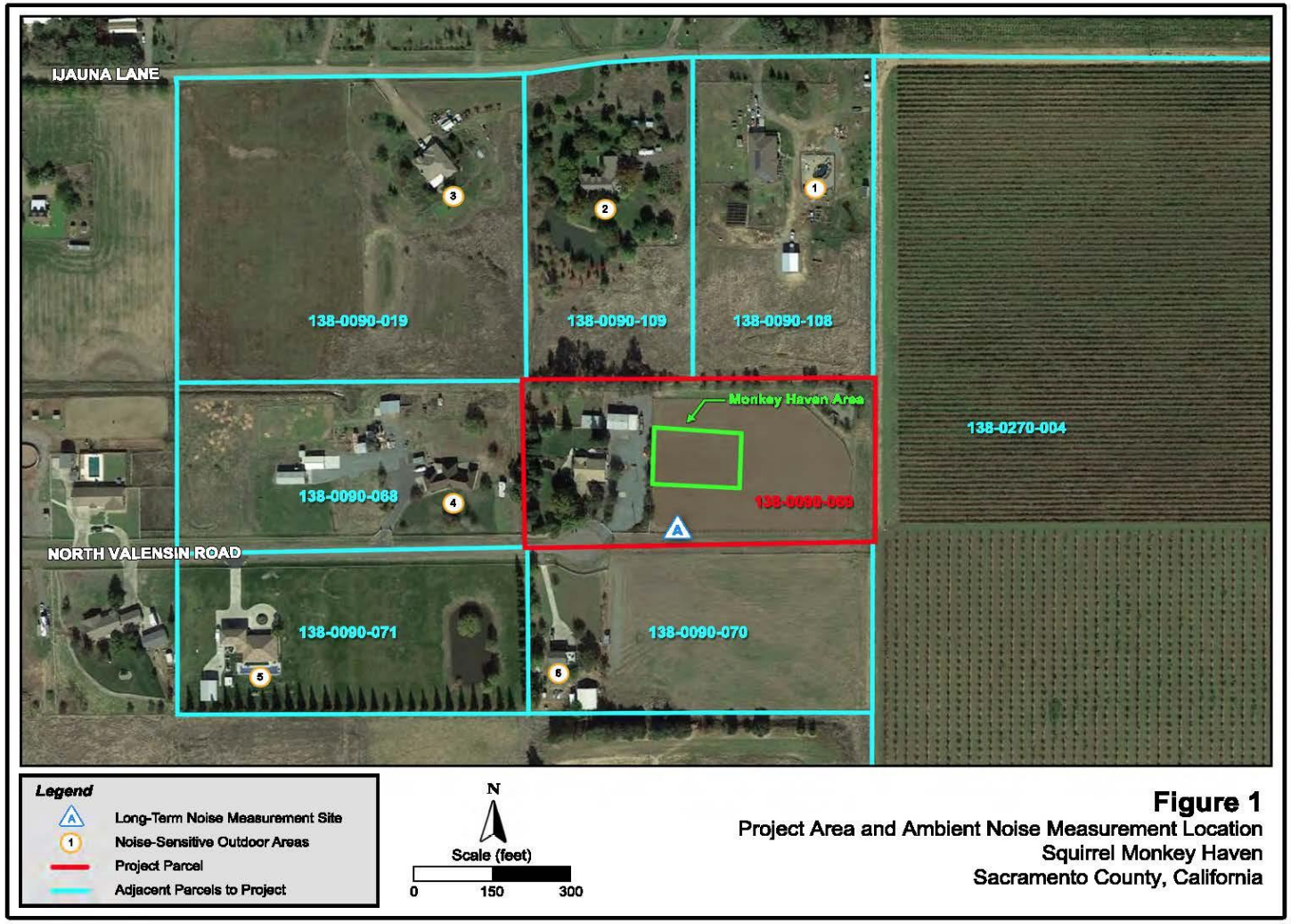


Figure 1
Project Area and Ambient Noise Measurement Location
Squirrel Monkey Haven
Sacramento County, California

Table NO-6 data indicate that existing ambient noise levels in the project vicinity were consistent from day-to-day and night-to-night. The measured ambient data from the three-day monitoring period was averaged to determine the baseline noise level condition in the project vicinity. The calculated daytime and nighttime median noise levels were 45 dB and 57 dB, while daytime and nighttime maximum noise levels were 58 dB and 63 dB. The elevated nighttime noise levels are believed to be attributable to the presence of increased insect activity during the nighttime hours.

The project parcel and surrounding parcels are large lot agriculturally zoned parcels containing single-family residences. The monkeys sleep pattern is diurnal like humans, awake during daytime hours and asleep during nighttime hours. Furthermore, the monkeys would be indoors within the proposed agricultural building during nighttime hours. Because noise-generation from the monkeys is not anticipated during nighttime hours, only the Sacramento County General Plan daytime (7 a.m. to 10 p.m.) noise level standards would be applicable to the project.

The primary noise source associated with this facility would be the vocalizations of the monkeys. The project applicant has indicated that the population of 51 monkeys will consist of 35 females and 16 males. The males are not heard vocalizing very often. If they do it is either a happy twitter at feeding time or a brief cackle to threaten a neighboring male. The females chit chat a lot throughout the day. The conversational chit chat (e.g., purrs, chirps, chucks) occur between monkeys when they are close to each another. According to the project applicant, these types of vocalizations are similar in sound level to average human conversation. Other vocalizations, which are the loudest, are given in reaction to specific events that are scary (alarm call yap) or annoying (cackle, shrieks). About 3-5 episodes of social drama occur daily that involve shrieking. These episodes are momentary and last about 30-60 seconds. Squirrel monkeys vocalize for specific reasons and do not vocalize impulsively or repetitively like dogs barking at strangers, out of boredom, or to protect territory.

According to footnote 7 of Table NO-3, the median (L_{50}) noise level standards are applicable to noise sources present in excess of 30 minutes out of the hour while the maximum (L_{max}) noise level standards are applicable to noise sources present less than 30 minutes out of the hour. It is our understanding that most of the vocalizations from monkeys throughout the day are “conversational chit-chat” with limited episodes of shrieking, occurring approximately 3-5 times per day. Because the conversational chit-chat could potentially occur in excess of 30 minutes out of an hour, it would be subject to the median (L_{50}) noise level standard of 55 dB. Because the shrieking would only occur on limited occasions, it would be subject to the maximum (L_{max}) noise level standard of 75 dB.

The journal article published by the Acoustical Society of America titled, “Responses of Squirrel Monkeys to their Experimentally Modified Mobbing Calls,” by Claudia Fichtel and Kurt Hammerschmidt (May 2003), provides reference noise levels for squirrel monkey vocalizations. Specifically, the article provides reference noise levels for the alarm call yap. The yap, according to the article, serves to inform members of the same

species about the presence of a mammalian predator and is often uttered in a chorus as a mobbing reaction. The maximum squirrel monkey yap noise levels were measured to be 76 dB ± 5 dB at a distance of 3 feet. Therefore, the worst- case maximum noise levels of for yaps documented in the journal article were 81 dB at 3 feet. As indicated previously, the loudest types of monkey vocalizations are alarm call yaps, cackles and shrieks. The project applicant has indicated that the shrieks are the loudest of the three vocalizations but not by a wide margin. In order to conservatively assess maximum noise levels associated with shrieks, 5 dB was added to the documented worst-case yap noise levels of 81 dB at 3 feet, resulting in reference maximum noise level of 86 dB at 3 feet. Median monkey vocalizations (twitters) were conservatively assumed to be 15 dB quieter than maximum yap noise levels, resulting in a reference noise level of 66 dB at 3 feet. Average male human conversation in a raised voice is approximately 65 dB at 3 feet, providing good agreement with the applicants' subjective similarity of the monkey twitter to human conversation. To provide a conservative assessment of median squirrel monkey noise generation (twitters) at the proposed facility, half (18) of the females were assumed to vocalizing simultaneously for the duration of an hour, resulting in a reference median noise level of 79 dB at 3 feet.

The reference noise levels discussed in the preceding paragraphs were projected to the nearest identified outdoor activity areas assuming normal spherical spreading of sound (6 dB decrease per doubling of distance from the noise source). Table NO-7 shows the predicted median and maximum noise levels at each of the six nearest residential outdoor activity areas to the proposed shelter for worst-case squirrel monkey vocalization noise generation.

Table NO-7: Predicted Squirrel Monkey Noise Levels at Neighboring Parcels

Predicted Squirrel Monkey Noise Levels at Nearest Outdoor Activity Areas				
			Predicted Noise Levels (dBA)	
Residence[1]	APN	Distance (feet)[2]	L_{50}	L_{max}
1	138-0090-108	520	34	41
2	138-0090-109	480	34	42
3	138-0090-019	640	32	39
4	138-0090-068	400	36	44
5	138-0090-071	840	30	37
6	138-0090-070	430	35	43
Sacramento County Daytime Standards:			**55**	**75**

Notes:

1. Nearest residential outdoor activity areas are illustrated on Figure 1.
2. Distances were scaled from the center of the nearest outdoor habitat area to nearest residential outdoor activity areas.

Table NO-7 indicates that predicted worst-case squirrel monkey noise levels generated by the proposed project would be satisfactory relative to the County's noise standards.

Furthermore, predicted noise levels would be below measured ambient noise levels presented in Table NO-6.

Predicted Noise Levels at Nearest Property Lines

Although the Sacramento County's noise level standards are applied at residential outdoor activity areas, monkey vocalization noise levels were also conservatively predicted at the nearest project property lines. The same methodology described in the previous section was utilized to predict monkey vocalization noise levels at the property lines. Those results are presented in Table NO-8.

Table NO-8: Noise Levels at Nearest Property Lines

Squirrel Monkey Haven – Sacramento County, California				
			Predicted Noise Levels (dBA)	
Direction	APN	Distance (feet)[1]	L_{50}	L_{max}
North	138-0090-109	110	47	55
East	138-0270-004	265	40	47
South	138-0090-070	135	45	53
West	138-0090-068	265	40	47
Sacramento County Daytime Standards:			**55**	**75**

Notes:
1. Distances were scaled from the nearest outdoor habitat area to the nearest property lines.

Table NO-8 indicates that predicted worst-case squirrel monkey noise levels generated by the proposed project would be satisfactory relative to the County's noise standards, even if they were assessed at the nearest project property lines rather than outdoor activity areas. Furthermore, predicted property line noise levels would be below the measured ambient noise levels presented in Table NO-6.

Single Event Analysis

Sound Exposure Level (SEL) represents the entire sound energy of a given single-event normalized into a one-second period regardless of event duration. According to the project applicant, about 3-5 episodes of social drama occur daily that involve shrieking with each episode lasting about 30-60 seconds. Given maximum shrieking noise levels of 86 dB at 3 feet and 60 seconds of continuous shrieking, the SEL for worst-case squirrel monkey vocalizations was calculated to be 104 dB at a distance of 3 feet.

Table NO-9 shows the predicted interior SEL at each of the six nearest residences. The analysis assumes a building façade transmission loss of 15 dB and 25 dB for bedroom windows in the open and closed positions, respectively.

Table NO-9: Estimated Noise Levels at Nearest Neighboring Bedrooms

Squirrel Monkey Haven – Sacramento County, California				
			Predicted SEL (dBA)[3]	
Residence[1]	APN	Distance (feet)[2]	Windows Open[4]	Windows Closed[5]
1	138-0090-108	510	44	34
2	138-0090-109	500	44	34
3	138-0090-019	670	42	32
4	138-0090-068	350	47	37
5	138-0090-071	810	40	30
6	138-0090-070	400	46	36
Recommended Interior SEL Standard[6]:			**55**	**55**

Notes:

1. Nearest residences are illustrated on Figure 1.
2. Distances were scaled from the center of the nearest outdoor habitat area to nearest residential facade.
3. SEL = Sound Exposure Level
4. Predicted noise levels were adjusted by -15 dB to account for the transmission loss provided by the residential building facades with the bedroom windows in the open position.
5. Predicted noise levels were adjusted by -25 dB to account for the transmission loss provided by the residential building facades with the bedroom windows in the closed position.
6. No universal SEL criterion has been developed for environmental noise assessments. The Sacramento County General Plan does not contain an SEL standard.

Table NO-9 indicates that worst-case squirrel monkey sound exposure levels are predicted to be well below the recommended interior SEL standard of 55 dB. No further consideration of noise mitigation measures would be warranted for the project relative to the recommended interior SEL standard of 55 dB.

Comparison of Proposed Project Relative to Typical Dog Kennel

Due to the unique nature of this project, estimated noise generated by the squirrel monkeys was compared to the noise generation of a typical dog kennel operation. The primary noise source associated with a typical outdoor dog kennel is periodic dog barking. Bollard has considerable experience in preparing noise studies for dog boarding facilities and, even under the most ideal boarding conditions with highly trained supervision, dogs occasionally still bark. Usually barking occurs in response to some stimuli, such as persons or other dogs entering the kennel area. The degree of barking depends largely on the experience of the staff and the level of stimuli the dogs receive.

To quantify noise levels associated with a typical outdoor dog kennel, Bollard averaged data collected at the All Pets Boarding (Loomis), Sacramento SPCA, and Nadelhaus Kennels (Chico). The results of the barking dog noise measurements indicate that at a

distance of approximately 200 feet from the dogs, the maximum noise level generated by the barking dogs was approximately 55 dB L_{max}. The average noise level measured at 200 feet with approximately 30-40 dogs barking intermittently was 50 dB L_{eq}. Because the county's standards are in terms of the median noise level descriptor, and not average (L_{eq}), median barking dog noise levels were conservatively assumed to be 50 dB L_{50}. At the Nadelhaus Kennels, median noise levels were approximately 5 dB lower than average noise levels, therefore the assumed median noise level of 50 dB L_{50} for this comparative analysis would be considered conservative. Table NO-10 shows the predicted squirrel monkey vocalization and barking dog noise levels at the outdoor activity areas of the six nearest residences.

Table NO-10: Comparison of Predicted Squirrel Monkey Noise Levels to Typical Dog Kennel

Squirrel Monkey Haven – Sacramento County, California						
			Predicted Noise Levels (dBA)			
			Squirrel Monkeys		Dogs Barking	
Residence[1]	APN	Distance (feet)[2]	L_{50}	L_{max}	L_{50}	L_{max}
1	138-0090-108	520	34	41	42	47
2	138-0090-109	480	34	42	42	47
3	138-0090-019	640	32	39	40	45
4	138-0090-068	400	36	44	44	49
5	138-0090-071	840	30	37	38	43
6	138-0090-070	430	35	43	43	48

Notes:

1. Nearest residential outdoor activity areas are illustrated on Figure 1.
2. Distances were scaled from the center of the nearest outdoor habitat area to nearest residential outdoor activity areas.

As indicated above in Table 6, predicted median noise levels due to barking dogs are approximately 8 dB higher than squirrel monkey vocalizations. Predicted maximum barking dog noise levels are approximately 6 dB higher than maximum squirrel monkey vocalization noise levels.

The low density rural character of the community generally provides a suitable environmental setting in which kennels would be compatible. According to the project applicant, the kennel will be closed-up at night between 8 p.m. and 7 a.m. weekdays and 8 p.m. and 9 a.m. weekends and holidays; therefore limiting the potential for nighttime noise disturbance. The location of the kennel from sensitive receptors along with the typical noise level produced by this species of monkey reduces any anticipated noise impact to ***less than significant***.

Mitigation Measures

None required.

9 CULTURAL RESOURCES

INTRODUCTION

This chapter analyzes and evaluates the potential impacts of the project on known and unknown cultural resources, and on unknown fossil deposits of paleontological importance. Cultural resources include historic buildings and structures, historic districts, historic sites, culturally sacred sites, prehistoric and historic archaeological sites, and other prehistoric and historic objects and artifacts. Paleontological resources (i.e., fossils) include the remains of plant and animal life and, unlike cultural resources, are exclusive of human remains and artifacts.

The following is based largely on the information and evaluation presented in a report entitled, *Cultural Resources Inventory Squirrel Monkey Haven Project, Sacramento County, California* prepared by John W. Dougherty of PAR Environmental Services Inc. This report details the results of a records search conducted by the North Central Information Center (NCIC), California Historical Resources Information System; a sacred lands file search by the Native American Heritage Commission (NAHC), contacts with Native Americans identified by the NAHC a paleontological database search archival research and literature review; and field inspection.

SETTING

CULTURAL HISTORY

PREHISTORY

The prehistory of California's Central Valley and Sierra Nevada have been addressed repeatedly over the span of the twentieth century (e.g. Lillard et al. 1939; Moratto 1984; Rosenthal et al. 2007). The following summary adheres to Rosenthal et al. (2007) and Rosenthal (2011). Discussing the central Sierra Nevada, Rosenthal (2011) collated and analyzed projectile point data emphasizing the Bodie Hills obsidian source to derive a regional chronology tied to regional archaeological data. Rosenthal (2011) recognizes five primary prehistoric periods:

- Early Archaic: before 7,000 cal. BP;
- Middle Archaic: 7,000 to 3,000 cal. BP;
- Late Archaic: 3,000 to 1,100 cal. BP;
- Recent Prehistoric I: 1,100 to 610 cal. BP; and
- Recent Prehistoric II: 610 cal. BP to historic contact.

The Archaic Period by definition is considered to reflect a period of more mobile, possibly band-level societies moving seasonally within the region, exploiting seasonally available resources (c.f. Fredrickson 1973, Willey and Phillips 1958). Typological and materials source information reflects extended geographic social interactions extending from the California Coastal region to the Great Basin and from as far north as southern Oregon and south to the Mono Lake region. In the Great Valley during the Late Archaic and Recent Prehistoric, material preferences appear to change over time with minor amounts of obsidian in earlier sites and a steady increase in the prevalence of obsidian from Coast Range sources toward the present (Lillard et al. 1939; Moratto 1984; Rosenthal et al. 2007). Dougherty (1990), however, suggested that the apparent changes in obsidian usage were more technological in nature and did not involve increased obsidian use by individuals.

The Recent Prehistoric I reflects the earliest archaeologically identifiable development of the societies ancestral to the historic ethnographic populations. A period of apparent reduced population punctuates the transition between the Late Archaic and earliest Recent Prehistoric I (Rosenthal 2011). The Recent Prehistoric II presents indications of increased sedentary lifestyle, larger village populations, a potential shift from foraging to logistically managed subsistence and resource intensification (Fredrickson 1973). Other indicators that suggest increased social complexity include evidence of inherited status for individuals, increased importance of ritual, and the spread of clamshell disk beads used as a medium of exchange (Fredrickson 1973; Rosenthal 2011).

ETHNOHISTORY

The Project Area falls within territory ethnographically attributed to the Plains Miwok people of Central California (Bennyhoff 1977; Levy 1978; Milliken 1995). The Miwok language is a member of the Penutian language family. Penutian languages are estimated to have been spoken by half of California's native population at the time of historic contact (Moratto1984:538-539).

Plains Miwok economy depended extensively on the acorn and riparian and marsh resources including fish and waterfowl from streams and marshes, and large game from the neighboring plains. The Plains Miwok hunted and gathered year-round (Levy 1978:398-413). For other materials they participated in an extensive economic network through which both finished goods and raw materials moved. Plains Miwok technology was dependent natural materials including stone, bone, shell, wood, plant fiber, and animal products. The Miwok engaged in trade with neighboring groups and acquired obsidian from sources in the Napa Valley and from trans-Sierran sources in eastern California and western Nevada (Kroeber 1976; Levy 1978). Trade and exchange links reached the Great Basin to the east, and the Pacific coast to the west where marine shell occurred (Hull 2007).

HISTORY

The project area is located in southern Sacramento County. The nearest named place is Herald, located about two miles south-southwest of the project location. There is little historical information available for the area, which is largely agricultural. Galt is located within the historical boundaries of the Cosumnes Township. The town was laid out in

1869 by one Obed Harvey and the Western Pacific Railroad Company (Reed 1923:119-120). Reed (1923 noted that during the 1920s colonies were being laid out near Arno and “the Valensin place.” The Central California electric road ran nearby. Reed noted that during the latter half of the 19th century farms became smaller, dropping from half-section ranches to smaller 20 to 40-acre operations, more intensively worked and with a more diverse pattern of crops. This pattern largely persists at present.

Regulatory Setting

Federal

National Historic Preservation Act

The 1966 National Historic Preservation Act (NHPA) set forth national policy for recognizing and protecting historic properties. It established the National Register of Historic Places (NRHP), State Historic Preservation Officers and programs, and the Advisory Council on Historic Preservation. The implementing regulations for Section 106, Title 36, Section 800 of the Code of Federal Regulations, set forth specific steps federal agencies must follow in order to take into account the effects of their projects on historic properties. In most cases, compliance with Section 106 is carried out by federal agencies through consultation with the State Historic Preservation Officer, and in the case of projects involving tribal lands, with the tribal representative. Properties of traditional religious and cultural importance to Native Americans are considered under Section 101(d)(6)(A) of NHPA.

The NRHP - the nation’s master inventory of known historic resources - is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, and cultural value. The formal criteria (contained in Title 36, Section 60.4 of the Code of Federal Regulations) for determining NRHP eligibility are as follows:

1. The property is at least 50 years old (however, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP);

2. It retains integrity of location, design, setting, materials, workmanship, feeling, and associations; and

3. It possesses at least one of the following characteristics:

    a. Association with events that have made a significant contribution to the broad patterns of history (events).

    b. Association with the lives of persons significant in the past (persons).

    c. Distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or

represents a significant, distinguishable entity whose components may lack individual distinction (architecture).

d. Has yielded, or may be likely to yield, information important to prehistory or history (information potential).

Ordinarily, buildings and structures less than 50 years old are not considered eligible for listing in the NRHP. A resource that lacks integrity or does not meet one of the NRHP criteria is not considered a historic property under federal law, and effects to such a resource are not considered significant under the NHPA.

STATE

CALIFORNIA CODE OF REGULATIONS

The California Register of Historic Resources (CRHR) is a listing of State of California resources that are significant within the context of California's history. The CRHR is a statewide program of similar scope and with similar criteria for inclusion as those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR. A historic resource must be significant at the local, state, or national level under one or more of the criteria defined in the California Code of Regulations Title 15, Chapter 11.5, Section 4850. All resources listed in, or formally determined eligible for, the NRHP are automatically listed in the CRHR.

The following four evaluation criteria determine listing eligibility of a resource to the CRHR:

1. Is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.

2. Is associated with the lives of persons important to local, California, or national history.

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

4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Similar to the NRHP, a resource must meet one of the above criteria and retain integrity.

CALIFORNIA HEALTH AND SAFETY CODE

If human remains are discovered during construction outside of a dedicated cemetery, California Health and Safety Code Section 7050.5 requires that the project owner contact the County coroner and further excavation or disturbance of land in the vicinity of the discovery cease until the coroner has made a determination. If the coroner

determines the remains are Native American, the coroner must contact NAHC within 24 hours and the procedures outlined in Public Resources Code (PRC) Section 5097.98 must be followed.

Native American Historic Resource Protection Act

The Native American Historic Resource Protection Act California (PRC 5097-5097.993) describes the duties of the NAHC. As established in Section 5097.98, whenever the commission receives notification of a discovery of Native American human remains from a County coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods.

California Environmental Quality Act

CEQA statutes [PRC 2100l(b) et seq.] require planning agencies to carefully consider the potential effects of a project on historical resources. Under the revised and adopted CEQA guidelines in Section 15064.5, a "historical resource" includes: a resource listed in or eligible for the CRHR; or listed in a local register of historical resources; or identified in a historical resource survey and meeting requirements in Section 5024.l(g) of the PRC; or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines historically significant, provided the determination is supported by substantial evidence in light of the whole record; or a resource so determined by a lead agency as defined in PRC 5020.l(j) or Section 5024.1. Under the State CEQA Guidelines, "[a] project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment [Public Resources Code Section 15064.5(b)]." Substantial adverse change is "... physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (PRC 15064.5(b)(2)).

CEQA also requires planning agencies to consider the effects of a project on unique archaeological resources. If an archaeological site meets the definition of a unique archaeological resource (PRC 21083.2), then the site must be treated in accordance with the special provisions for such resources, which include time and cost limitations for implementing mitigation. Resources that neither meet any of the criteria for listing on the NRHP or CRHR, nor qualify as a “unique archaeological resource” under PRC Section 21083.2 are viewed as not significant. Under CEQA, “[a] nonunique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects” (PRC Section 21083.2(h)). Under CEQA, if an archeological site is not a significant “historical resource” but meets the definition of a “unique archeological resource” as defined in PRC Section 21083.2, then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined as follows:

> An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
>
> > (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
> >
> > (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
> >
> > (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

State CEQA Guidelines Section 15064.5(e), requires that excavation activities be stopped whenever human remains are uncovered and that the County coroner be called in to assess the remains. If the County coroner determines that the remains are those of Native Americans, the NAHC must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as timely identified by the NAHC. Section 15064.5 directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

In addition to the mitigation provisions pertaining to accidental discovery of human remains, the State CEQA Guidelines also require that a lead agency make provisions for the accidental discovery of historical or archaeological resources. Pursuant to Section 15064.5(f), these provisions should include “an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place.”

TRIBAL CULTURAL RESOURCES

Assembly Bill (AB) 52, “Native Americans: California Environmental Quality Act,” amended CEQA to identify a “Tribal Cultural Resource” as a new, separate, and distinct resource to be analyzed under CEQA. The bill also amends Section 5097.94 (Native American Historical, Cultural, and Sacred Sites) of the PRC and adds Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21084.2, and 21084.3 to the CEQA statutes. The additions to CEQA mandate clear timelines for consultation with California Native American tribes.

AB 52 applies to all projects that have a notice of preparation or a notice of negative declaration or mitigated negative declaration filed on or after July 1, 2015. The bill requires that a lead agency notify a California Native American tribe about projects in its purview if that tribe has requested, in writing, to be kept informed of projects proposed by the lead agency and continue to consult with the tribe, if requested. The bill also

specifies mitigation measures that may be considered to avoid or minimize impacts on Tribal Cultural Resources.

Local

Sacramento County General Plan

Policies related to cultural resources are set forth in Section VIII of the Conservation Element. Policies relevant to the project include the following:

Policy CO-155. Native American burial sites encountered during preapproved survey or during construction shall, whenever possible, remain in situ. Excavation and reburial shall occur when in situ preservation is not possible or when the archeological significance of the site merits excavation and recording procedure. On-site reinternment shall have priority. The project developer shall provide the burden of proof that off-site reinternment is the only feasible alternative. Reinternment shall be the responsibility of local tribal representatives.

Policy CO-158. As a condition of approval of discretionary permits, a procedure shall be included to cover the potential discovery of archaeological resources during development or construction.

Policy CO-161. As a condition of approval for discretionary projects, require appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources.

Policy CO-163. Require that a certified geologist or paleoresources consultant determine appropriate protection measures when resources are discovered during the course of development and land altering activities.

Significance Criteria

Based on Appendix G of the State CEQA Guidelines, the project was determined to result in a significant impact to cultural resources if it would:

- cause a substantial adverse change in the significance of an historical resource as defined in Section 15064.5 of the State CEQA Guidelines;
- cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5 of the State CEQA Guidelines;
- disturb any human remains, including those interred outside of formal cemeteries; or
- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;

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

Impacts And Analysis

Methodology

The impacts analysis for cultural resources is based on the findings and recommendation of the *Cultural Resources Inventory Squirrel Monkey Haven Project, Sacramento County, California* (Dougherty 2017). The analysis is also informed by the provisions and requirements of federal, state, and local laws and regulations applicable to cultural resources.

Impact: Adversely Affect Important Cultural or Archaeological Resources

The cultural resources inventory and evaluation did not identify any archaeological or tribal resources on the project site or within a quarter-mile of the project area (Dougherty 2017). The NCIC records search did not yield any resources, studies, or reports within a quarter-mile of the project area. The NAHC did not identify any sacred sites that could be affected by the project.

Although no NRHP- or CRHR-listed or eligible resources, unique archaeological resources, tribal cultural resources, or traditional cultural properties have been documented in the project site, the project is located in a region where significant prehistoric and historic-era cultural resources have been recorded and there remains a potential that undocumented cultural resources could be unearthed or otherwise discovered during ground-disturbing and construction activities. Prehistoric or ethnohistoric materials might include flaked stone tools, tool-making debris, stone milling tools, shell or bone items, and fire-affected rock or soil darkened by cultural activities (midden); examples of significant discoveries would include villages and cemeteries. Historic materials might include metal, glass, or ceramic artifacts; examples of significant discoveries might include former privies or refuse pits. Due to the potential for these undocumented resources to occur on the project site, there could be significant impacts on cultural resources.

Implementation of Mitigation Measure CR-1 would ensure that any undocumented cultural resources or inadvertent discoveries of cultural resources made during construction or ground-disturbing activities would be properly recorded and the historical significance of the resources documented. This mitigation is consistent with Sacramento County General Plan Policy CO-158, which requires that procedures to cover the potential discovery of archaeological resources during development or construction be included as a condition of approval of discretionary permits. Therefore, potentially

significant impacts resulting from inadvertent damage or destruction of unknown cultural resources during construction would be reduced to a ***less-than-significant*** level.

Impact: Disturb Human Remains, Including Those Interred Outside of Formal Cemeteries

There is no known evidence of potential for human burials on the project site. In the event human remains are discovered, the contractor would be required to comply with existing regulations. Pursuant to Section 7050.5 of the California Health and Safety Code, in case of the discovery of human remains, all work would stop and the County coroner would be immediately notified. If the remains are determined to be Native American, guidelines of the NAHC would be adhered to in the treatment and disposition of the remains, consistent with PRC Section 5097.98 and Sacramento County General Plan Policy CO-155. With application of applicable laws and regulations, any disturbance of human remains would be handled such that there would be a ***less-than-significant*** impact.

Impact: Adversely Affect a Unique Paleontological Resource or Site, or a Unique Geologic Feature

According to the State CEQA Guidelines, a project is considered to have a significant impact on paleontological resources if it would directly or indirectly result in the destruction of a unique paleontological resource. No known paleontological resources or sites occur at the project location; therefore, Sacramento County General Plan Policy CO-161 (which requires appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources) would not apply. Because no paleontological resources are known to be present and the site has very low potential for paleontological resources, this impact would be ***less than significant***.

Impact: Adversely Affect Tribal Cultural Resources

Pursuant to AB52, Tribes that have requested notification of projects in accordance with Public Resources Code 21080.3.1(b)(1) were notified and provided an opportunity to request consultation. Wilton Rancheria was the only tribe that requested consultation. Documents were shared with Wilton and a consultation meeting was determined not to be necessary. In addition, The Cultural Resources Inventory did not identify any sacred sites on or near the project site. Impacts to tribal cultural resources are, therefore, considered ***less than significant.***

Mitigation Measures

Mitigation Measure CR-1: If cultural resources are discovered during project-related construction activities, all ground disturbances within a minimum of 50 feet of the find shall be halted and the Planning and Environmental Review Division of the Community Development Department shall be immediately notified at (916) 874-7499. Work shall remain suspended until a County-identified, qualified professional archaeologist can

evaluate the discovery. The archaeologist shall examine the resources, assess their significance, and recommend appropriate procedures to the lead agency to either further investigate or mitigate adverse impacts. If the find is determined to be a significant historical resource and the archaeological resource cannot be avoided, then applicable mitigation measures for significant resources shall be completed (e.g., preservation in place, data recovery program pursuant to PRC Section 21083.2[i]). The project applicant shall be required to implement any mitigation deemed necessary for the protection of such cultural resources. During evaluation or mitigated treatment, ground disturbance and construction work could continue on other parts of the project site.

10 GREENHOUSE GASES & CLIMATE CHANGE

INTRODUCTION

This chapter provides a discussion of climate change science and greenhouse gas (GHG) emissions sources in California and Sacramento County; a summary of applicable regulations with respect to local, regional, and statewide GHG emission sources; and includes an analysis of potential short- and long-term GHG impacts caused by the project.

GHG emissions have the potential to adversely affect the environment because, on a cumulative basis, they contribute to global climate change. In turn, global climate change has the potential to result in rising sea levels, which can inundate low-lying areas; affect rain and snow fall, leading to changes in water supply; result in increased risk of catastrophic wildfire; and to affect habitat, leading to adverse effects on biological and other resources.

SETTING

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

THE PHYSICAL SCIENTIFIC BASIS

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. The absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), chlorofluorocarbons (CFCs), and fluorinated gases hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Some GHGs such as CO_2 occur naturally, and are emitted to the atmosphere through natural processes and human activities. Other GHGs (e.g., fluorinated gases) are created and emitted solely through human activities.

Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global

warming. It is “extremely likely” that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors (Intergovernmental Panel on Climate Change [IPCC] 2014:3, 5).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any particular GHG molecule is dependent on multiple variables and cannot be determined with any certainty, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains in the atmosphere (IPCC 2013:467).

EFFECTS OF CLIMATE CHANGE ON THE ENVIRONMENT

IPCC was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme to provide the world with a scientific view on climate change and its potential effects. According to the IPCC global average temperature is expected to increase relative to the 1986-2005 period by 0.3 to 4.8 degrees Celsius (°C) (0.5 to 8.6 degrees Fahrenheit [°F]) by the end of the 21st century (2081-2100), depending on future GHG emission scenarios (IPCC 2014:SPM-8). According to the California Natural Resources Agency (CNRA), temperatures in California are projected to increase 2.7°F above 2000 averages by 2050 and, depending on emission levels, 4.1 to 8.6°F by 2100 (CNRA 2012:2).

Physical conditions beyond average temperatures could be affected by the accumulation of GHG emissions. For example, changes in weather patterns resulting from increases in global average temperature are expected to result in a decreased volume of precipitation falling as snow in California and an overall reduction in snowpack in the Sierra Nevada. Based on historical data and modeling, the California Department of Water Resources (CDWR) projects that the Sierra snowpack will decrease by 25 to 40 percent from its historic average by 2050 (CDWR 2008:4). An increase in precipitation falling as rain rather than snow also could lead to increased potential for floods because water that would normally be held as snow in the Sierra Nevada until spring could flow into the Central Valley concurrently with winter storm events (CNRA 2012:5). This scenario would place more pressure on California’s levee/flood control system.

Another outcome of global climate change is sea level rise. Sea level rose approximately 7 inches during the last century and, assuming that sea-level changes along the California coast continue to reflect global trends, sea level along the state’s coastline in 2050 could be 10 to 18 inches higher than in 2000, and 31 to 55 inches higher by the end of this century (CNRA 2012:9).

As the existing climate throughout California changes over time, the ranges of various plant and wildlife species could shift or be reduced, depending on the favored temperature and moisture regimes of each species. In the worst cases, some species would become extinct or be extirpated from the state if suitable habitat conditions are no longer available (CNRA 2012:11, 12).

Changes in precipitation patterns and increased temperatures are expected to alter the distribution and character of vegetation and associated moisture content of plants and soils. An increase in frequency of extreme heat events and drought are also expected. These changes are expected to lead to increased frequency and intensity of large wildfires (CNRA 2012:11).

GREENHOUSE GAS EMISSIONS SOURCES

STATEWIDE GREENHOUSE GAS EMISSIONS INVENTORY

Emissions of GHGs contributing to global climate change are attributable, in large part, to human activities associated with on-road and off-road transportation, industrial/manufacturing, electricity generation by utilities and consumption by end users, residential and commercial onsite fuel usage, agriculture, high global warming potential (GWP) gases, and recycling and waste sectors (California Air Resources Board [ARB] 2015). The most recent California statewide GHG emissions inventory is summarized in Table CC-1.

In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (ARB 2015). Emissions of CO_2 are, largely, byproducts of fossil fuel combustion. CH_4, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N_2O is also largely attributable to agricultural practices and soil management. Additionally, high-GWP gases have atmospheric insulative properties that are hundreds to tens of thousands of times greater than that of CO_2. HFCs, PFCs, and SF_6 are some of the most common types of high-GWP gases and result from a variety of industrial processes. HFCs and PFCs are used as refrigerants and can be emitted through evaporation and leakage. SF_6 is a powerful electrical insulator used in power transmission and semiconductor manufacturing and is emitted through evaporation and leakage into the atmosphere.

Table CC-1: California Statewide Greenhouse Gas Emissions Inventory (1990-2016)

Emissions Sector	MMT CO_2e				Percent of Total (2016)	Percent Change (1990-2016)
	1990[1]	2000	2010	2016		
Transportation	151	176	170	174	41%	15%
Electricity Generation[2]	111	105	91	69	16%	38%
Industrial	103	105	101	100	23%	-3%
Commercial and Residential Fuel Use	44	45	51	51	12%	16%
Agriculture	23	32	34	34	8%	48%
Total[3]	**432**	**471**	**448**	**429**	**100**	**-1%**

Notes: GWP = global warming potential; MMT CO_2e = million metric tons of carbon dioxide equivalent

1 California's first 1990 GHG emissions inventory was prepared in 2007 by ARB using GWP values from the IPCC Second Assessment Report (IPCC 1995). All other inventory years shown use GWP values from the IPCC Fourth Assessment Report (IPCC 2007).

2 Includes both in-state electricity generation and out-of-state imported electricity that is consumed in-state.

3 Totals may not sum exactly due to rounding and "not specified" categories being left out.

Sources: ARB 2007, ARB 2018.

SACRAMENTO COUNTY GREENHOUSE GAS INVENTORY

In June 2009, Sacramento County worked with other local agencies in the county to inventory GHG emission sources and quantities using data from 2005 (Sacramento County 2011a). This 2005 baseline approximates the "current levels" of emissions referenced in ARB Scoping Plan. The inventory is broken down into the following three categories in the County's Climate Action Plan (CAP): 1) entire county (referred to as "countywide"), 2) unincorporated county area, and 3) Sacramento County government operations (Sacramento County 2011a). The inventory provides useful information for selecting and prioritizing actions to reduce emissions, and it serves as a baseline for measuring progress toward meeting the statewide GHG reduction target mandated by the Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). The original 2009 inventory and updated 2011 inventory for some of the sectors were used to prepare the .

Table CC-2.

Table CC-2: 2015 Unincorporated Sacramento County Community Greenhouse Gas Inventory

Sectors	2015 ($MTCO_2e$/year)	Percent of Total
Residential Energy	1,193,311	25%
Commercial/Industrial Energy	890,603	18%
Building Total	*2,083,914*	*43%*
On-Road Vehicles	1,671,596	34%
Off-Road Vehicles	196,769	5%
Transportation Total	*1,868,365*	*39%*
Solid Waste	352,909	7%
Agriculture	254,899	5%
High-GWP Gases	251,085	5%
Wastewater	27,253	<1%
Water-Related	15,222	<1%
Total	**4,853,647**	**100%**

Notes: Totals may not add due to rounding. $MTCO_2e$ = metric tons of carbon dioxide equivalent; GWP = Global Warming Potential

Source: Data compiled by Ascent Environmental in 2016.

Regulatory Setting

Federal

Federal Clean Air Act

The U.S. Environmental Protection Agency (EPA) is the federal agency responsible for implementing the federal Clean Air Act (CAA) and its amendments. The Supreme Court of the United States ruled on April 2, 2007 that CO_2 is an air pollutant as defined under the CAA, and that EPA has the authority to regulate emissions of GHGs. The ruling in this case resulted in EPA taking steps to regulate GHG emissions and lent support for state and local agencies' efforts to reduce GHG emissions.

National Program to Cut Greenhouse Gas Emissions and Improve Fuel Economy for Cars and Trucks

On August 28, 2014, EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) finalized a new national program that would reduce GHG emissions and improve fuel economy for all new cars and trucks sold in the U.S. (NHTSA 2012). EPA proposed the first-ever national GHG emissions standards under the CAA, and NHTSA proposed Corporate Average Fuel Economy standards under the Energy Policy and Conservation Act. This proposed national program allows automobile manufacturers to build a single light-duty national fleet that satisfies all requirements under both Federal programs and the standards of California and other states. While this program will increase fuel economy to the equivalent of 54.5 miles per gallon for cars and light-duty trucks by Model Year 2025, additional phases are being developed by NHTSA and EPA that address GHG emission standards for new medium- and heavy-duty trucks.

State

California Global Warming Solutions Act

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Global Warming Solutions Act of 2006. AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 also requires that these reductions "…shall remain in effect unless otherwise amended or repealed. (b) It is the intent of the Legislature that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020. (c) The (Air Resources Board) shall make recommendations to the Governor and the Legislature on how to continue reductions of greenhouse gas emissions beyond 2020." [California Health and Safety Code, Division 25.5, Part 3, Section 38551]

Climate Change Scoping Plan and Update

In December 2008, ARB adopted its Climate Change Scoping Plan, which contains the main strategies California will implement to achieve reduction of approximately 118 MMT CO_2e, or approximately 22 percent, from the State's projected 2020 emission level of 545 MMT CO_2e under a business-as-usual scenario. This is a reduction of 47 MMT CO_2e, or almost 10 percent, from 2008 emissions. ARB's original 2020 projection was 596 MMT CO_2e, but this revised 2020 projection takes into account the economic downturn that occurred in 2008 (ARB 2011). The Scoping Plan reapproved by ARB in August 2011 includes the Final Supplement to the Scoping Plan Functional Equivalent Document, which further examined various alternatives to Scoping Plan measures. The Scoping Plan also includes ARB-recommended GHG reductions for each emissions sector of the state's GHG inventory.

In May 2014, ARB released and has since adopted the *First Update to the Climate Change Scoping Plan* to identify the next steps in reaching AB 32 goals and evaluate

the progress that has been made between 2000 and 2012 (ARB 2014:4 and 5). According to the update, California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020 (ARB 2014: ES-2). The update also reports the trends in GHG emissions from various emission sectors. A new update is currently in process.

Sustainable Communities and Climate Protection Act

The Sustainable Communities and Climate Protection Act of 2008 (SB 375) aligns regional transportation planning efforts, regional GHG emission reduction targets for cars and light trucks, land use planning, and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy, which integrates regional land use and transportation planning within an MPO's Regional Transportation Plan.

SB 375 requires ARB, in consultation with MPOs, to provide each region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years, but can be updated every four years, if advancements in emissions technologies affect the reduction strategies to achieve the targets.

Sacramento County is under the jurisdiction of the Sacramento Area Council of Governments (SACOG), which includes Yolo, Sutter, Yuba, Placer, El Dorado, and Sacramento Counties. In February 2016, SACOG adopted its 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), which is the region's transportation and sustainability investment strategy for protecting and enhancing the region's quality of life and economic prosperity through 2035. Plan implementation is expected to result in regional benefits to mobility, economy, health and sustainability. SACOG's plan is also expected to help California reach its GHG reduction goals, with a 34 percent reduction in GHG emissions by 2020 (15 MMT CO_2e) and a 38 percent reduction by 2036 (14.15 MMT CO_2e)—compared with 2008 levels (22.7 MMT CO_2e (SACOG 2016)).

California Environmental Quality Act

SB 97 directed the California Natural Resources Agency to adopt amendments to the California Environmental Quality Act (CEQA) Guidelines related to analysis of GHG emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

CEQA allows lead agencies to analyze and mitigate the significant effects of GHG emissions at a programmatic level, such as in a general plan, or as part of a separate plan (e.g., a climate action plan) to reduce GHG emissions (CEQA 15183.5).

California Building Efficiency Standards of 2016 (Title 24, Part 6)

Buildings in California are required to comply with California's Energy Efficiency Standards for Residential and Nonresidential Buildings established by the California Energy Commission (CEC) in 1978 and updated on an approximately 3-year cycle to allow consideration and possible incorporation of new energy efficient technologies and methods. All buildings for which an application for a building permit is submitted on or after January 1, 2017 must follow the 2016 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The CEC Impact Analysis for California's 2016 Building Energy Efficiency Standards estimates that the 2016 Standards are 28 percent more efficient than the previous 2013 standards for single-family residential construction (CEC 2016).

Clean Energy and Pollution Reduction Act

Approved by the Governor on October 7, 2015, the California Energy and Pollution Reduction Act (SB 350) targets a 50 percent renewable mix in California electricity by December 31, 2030 and a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030 with annual targets established by the CEC. This bill is meant as an extension of the State's current 2020 Renewable Portfolio Standards goal. SB 350's energy efficiency goals are applicable to both existing building stock and new construction, but would have the most impact on existing building stock.

Executive Order B-30-15

On April 20, 2015, Governor Edmund G. Brown Jr. signed Executive Order (EO) B-30-15 to establish a new California GHG reduction target of 40 percent below 1990 levels by 2030, as well as increase statewide efforts to address the need for increased climate change adaptation measures by State agencies. This EO aligns California's GHG reduction targets with those of leading international governments such as the 28-nation European Union which adopted the same target in October 2014. California is on track to meet or exceed its legislated target of reducing GHG emissions to 1990 levels by 2020, as established in AB 32 (summarized above). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the United States to limit global warming below 2°C, the warming threshold at which there will likely be major climate disruptions such as super droughts and rising sea levels. The targets stated in EO B-30-15 have not been adopted by the State legislature.

Senate Bill 32 and Assembly Bill 197, Statutes of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize ARB to achieve a statewide GHG emission reduction of at least 40 percent below the AB 32 goal of 1990 levels by 2020 by no later than December 31, 2030. SB 32 codified the

targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

SB 32 is contingent upon AB 197, which grants the State Legislature stronger oversight over ARB's implementation of its GHG reduction programs. AB 197 amended the existing Health and Safety Code sections and establish new statutory directions, including the following provisions. Section 9147.10 establishes a six-member Joint Legislative Committee on Climate Change Policies to ascertain facts and make recommendations to the Legislature. ARB is required to appear before this committee annually to present information on GHG emissions, criteria pollutants, and toxic air contaminants from sectors covered by the Scoping Plan. Section 38562.5 requires that ARB consider social cost when adopting rules and regulations to achieve emissions reductions, and prioritize reductions at large stationary sources and from mobile sources. Section 38562.7 requires that each Scoping Plan update identify the range of projected GHG and air pollution reductions and the cost-effectiveness of each emissions reduction measure.

Local

Sacramento Metropolitan Air Quality Management District

Sacramento Metropolitan Air Quality Management District (SMAQMD), is the primary agency responsible for addressing air quality concerns in Sacramento County—its role is discussed further in Chapter 7, "Air Quality." SMAQMD also recommends methods for analyzing project-generated GHGs in CEQA analyses and offers a myriad of potential GHG reduction measures for land use development projects to be considered by lead agencies. SMAQMD has developed thresholds of significance to provide a uniform scale to measure the significance of GHG emissions from land use and stationary source projects in compliance with CEQA and AB 32. However, in accordance with SMAQMD guidance, when other local agencies have developed their own thresholds of significance for evaluating GHG emissions, these take precedence over SMAQMD thresholds.

Sacramento County General Plan

The Sacramento County 2030 General Plan includes the following policies in the Air Quality Element and in the Land Use Element, respectively, related to reducing GHG emissions in Sacramento County (Sacramento County 2011b).

Policy AQ-22. Reduce greenhouse gas emissions from County operations as well as private development.

Policy LU-115. It is the goal of the County to reduce GHG emissions to 1990 levels by the year 2020. This shall be achieved through a mix of State and local action.

Sacramento County Climate Action Plan

The Sacramento County CAP Strategy and Framework Document presents a framework for reducing GHG emissions and managing water and other resources to best prepare for a changing climate (Sacramento County 2011a). It defines an overall strategy to address climate change, including:

- Reducing GHG emissions associated with the County's own operations, as well as taking actions that facilitate GHG emissions reduction in the community.
- Establishing priorities based on a number of factors, such as cost-effectiveness and co-benefits.
- Addressing projected vulnerabilities associated with climate change where cost-effective or required.
- Working collaboratively with other jurisdictions and leveraging existing programs and resources.

This CAP describes actions that the County has already taken or could take in the future to reduce GHG emissions and adapt to a changing climate, while being more resource efficient. Table CC-3 summarizes those actions most relevant to the project, broken down by emissions sector. The existing Sacramento County CAP does not meet all of the criteria in Section 15183.5(b)(1) as a plan for the reduction of GHG emissions. The County is currently preparing an updated CAP to meet all specified criteria.

Table CC-3: Sacramento County CAP Actions to Address Climate Change

Sector	Goals
Transportation and Land Use	Increase the average fuel efficiency of County-owned vehicles powered by gasoline and diesel and encourage increased fuel efficiency in community vehicles. Increase use of alternative and lower carbon fuels in the County vehicle fleet and facilitate their use in the community. Reduce total vehicle miles traveled per capita in the community and the region.
Energy	Improve energy efficiency of existing and new buildings in the unincorporated County. Improve energy efficiency of County infrastructure operation (roads, water, waste, buildings, etc). Decrease use of fossil fuels by transitioning to renewable energy sources.
Water	Achieve 20% reduction in per capita water use levels by 2020. Emphasize water use efficiency as a way to reduce energy consumption. Increase energy efficiency related to water system management. Strive to reduce uncertainties in water reliability and quality by increasing the flexibility of the water allocation and distribution system to respond to drought conditions and encouraging redundancy in water storage, supply, and treatment systems. Elevate the importance of floodplain and open space protection as a means of protecting water quality and habitat, sequestering carbon, and providing groundwater recharge opportunities.
Waste Management and Recycling	Promote reduction in consumption. Maximize waste diversion, composting, and recycling through expanding residential and commercial programs. Reduce methane emissions at Kiefer Landfill.
Agriculture and Open Space	Protect important farmlands, rangelands and open space from conversion and encroachment and maintain connectivity of protected areas. Educate the local agricultural community about the impacts of climate change and support efforts to promote sustainable practices.

Sector	Goals
	Promote water conservation to ensure reliable and sufficient water supplies for crop irrigation and livestock needs. Implement policies and programs which increase demand for locally grown and processed agricultural commodities. Achieve a net gain in the size, health, and diversity of protected open space and the local urban forest, encouraging native species wherever practical. Ensure community understanding of and appreciation for open space, parks, and trees both as a vital part of the region's character and as a greenhouse gas reduction strategy.

Source: Sacramento County 2011a

Significance Criteria

Per Appendix G of the CEQA Guidelines and SMAQMD recommendations, greenhouse gas impacts are considered significant if the project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG's.

The guidelines do not include a numeric significance threshold, but instead defer to the lead agency to determine whether there are thresholds which apply to the project. With regard to the third item, statewide plans include AB 32 and SB 375, as described in the Regulatory setting. The underlying strategy and assumptions of the AB 32 Scoping Plan were used to develop County thresholds. AB 32 requires emissions be reduced to 1990 levels by the year 2020, which is estimated in the AB 32 Scoping Plan to be 15% below existing (2005) emissions.

As previously discussed, Sacramento County prepared a GHG emissions inventory for the County, and as an offshoot of that process has published a Draft Climate Action Plan. Thresholds have been developed based on the County inventory (Table CC-4). As shown below, separate thresholds have been included for each sector. The purpose of this division is to provide additional information about the source of emissions. When making a final determination of significance, these thresholds can be combined to generate a total emissions threshold; it is this total threshold that will ultimately determine whether impacts are found to be significant.

Table CC-4: Greenhouse Gas Significance Thresholds (Annual Metric Tons CO_2e)

Sector	2005 Baseline	2020 Target	Thresholds
Residential Energy	1,033,142	878,275	1.33 per capita
Commercial & Industrial Energy	772,129	656,914	7.87 per Kft^2
Transportation	2,066,970	1,757,236	2.67 per capita
Trucks	*488,806*	*414,470*	*0.10 per 100 VMT*

Also note that the transportation sector is expressed in per capita, which is not applicable to non-residential projects. The determination was made that, in general, non-residential projects redistribute existing trips made by passenger vehicles – they do not generate new trips. The majority of trips to and from a commercial project are generated by residential uses. Residential projects are already being required to account for transportation emissions, so including them for commercial projects as well would result in double-counting; therefore, only the truck-trips generated by a commercial project itself will be subject to analysis. An exception to this rule is any commercial project which is a regional draw or unique draw and may cause the redistribution of existing trips in a manner that will increase total existing VMT.

Impacts And Analysis

Methodology

SMAQMD has established recommended thresholds that ensure that 90 percent of emissions from projects in the region are reviewed to determine the need for additional mitigation. According to SMAQMD's methodology, a land use development project with operational emissions that are less than 1,100 metric tons (MT) of carbon dioxide equivalent (CO_2e) per year will not result in a significant impact and will not require additional mitigation. SMAQMD assumes that projects with operational emissions below 1,100 MT of CO_2e /year will not exceed their construction GHG threshold of significance as long as the project does not include buildings that are more than four stories tall, significant trenching, demolition activities, a compact construction schedule, significant cut and fill operations, or significant truck activity.

SMAQMD has established an Operational Screening Levels table, which shows the size of development, by land use type, that SMAQMD has determined would not exceed the operational GHG emissions thresholds. Projects that are smaller than those listed in the table and, which meet the construction parameters listed above, are considered to have a less than significant impact related to Climate Change. For projects that exceed the development size listed in the table, SMAQMD recommends the use of CalEEMod to quantify the GHG emissions that would be generated by the project.

Pursuant to Sacramento County methodology, SMAQMD's threshold of 1,100 MT of CO_2e /year is used as an initial screening threshold. Projects which screen out using the screening threshold of 1,100 MT/year of CO_2e are considered to have a less than significant impact related to Climate Change and no further analysis is required. Projects which do not screen out using SMAQMD's GHG Operational screening levels table or SMAQMD's threshold of 1,100 MT of CO_2e /year must then be evaluated using the County's GHG thresholds (Table CC-4).

Impact: Generation of Greenhouse Gas Emissions

Pursuant to Sacramento County methodology, the project-related GHG emissions were first analyzed by comparing them to the SMAQMD threshold of 1,100 MT of CO_2e /year. Because this project involves a use that is not specifically listed in the SMAQMD screening table the California Emissions Estimator Model (CalEEMod) was used to estimate the annual metric tons of CO_2 equivalent (CO_2e) attributable to the construction and operation of the proposed project. (please refer to Appendix E for CalEEMod runs).

Based on the unique characteristics of the proposed monkey sanctuary; PER staff consulted with SMAQMD staff regarding the appropriate land use classification and variables to use in the model. In addition, the defaults in CalEEMod were changed to reflect the emission anticipated for operation in 2019, and carbon intensity forecasts for the Sacramento Municipal Utility District (SMUD) based on SMUD's 2009 reporting year.

Table CC-5 shows the project's estimated annual GHG emissions for construction and operation.

Table CC-5: Project's Estimated Greenhouse Gas Emissions

	MT of CO_2e /Year
Estimated Construction GHG Emissions	18.25
Estimated Annual Operational GHG Emissions	118.79
SMAQMD GHG Emissions Threshold	1,100
Exceed SMAQMD Threshold	No

As shown in Table CC-5, the estimated GHG emissions for both facility construction and annual operation are significantly below SMAQMD's thresholds of 1,100 annual metric tons. Impacts related to GHG emissions and contributions to climate change are ***less than significant.***

Mitigation Measures

None required.

11 BIOLOGICAL RESOURCES

INTRODUCTION

This chapter addresses biological resources known or with potential to occur on the project site, and describes potential effects of project implementation on those resources. Biological resources include common vegetation and habitat types, sensitive plant communities, and special-status plant and animal species. The analysis includes a description of the existing environmental conditions, the methods used for assessment, the potential direct and indirect impacts of project implementation, and mitigation measures recommended to address impacts determined to be significant or potentially significant. Federal, state, and local regulations that pertain to biological resources are summarized.

The assessment is based largely on the information and evaluation presented in the Biological Resource Assessments (Bargas Environmental Consulting, 2018; Appendix F), as well as subsequent site reconnaissance and database queries.

SETTING

The site is located on a residential property in a rural community northeast of Galt, California. The western portion of the five-acre parcel is developed with a residential home and two accessory structures (reference Plate BR-1). The proposed kennel/monkey sanctuary will be located in the center of the parcel. This area is currently a fenced, agricultural pasture of approximately two acres. The pasture has an even grade and is kept mowed. Vegetation consists of annual grass, star thistle, and similar annual plants that prefer disturbed soil areas. A 0.07-acre, man-made pond is located at the northeast corner of the property. The pond is dominated by tules and cattails and is surrounded by valley oaks and ornamental pines.

The project area appears to contain only Galt clay soils. Galt clay soils are dense, dark clay soils developed in basin areas originally subject to flooding. The project site is located within the Willock Creek (South) watershed. The nearest perennial water courses are Badger Creek, located approximately 0.80 miles north and Laguna Creek located about 0.75 miles to the southeast.

Plate BR-1: Project Site

Special-Status Species

Special-status species are plants and animals that are legally protected or that are otherwise considered sensitive by federal, state, or local resource agencies. In this document, special-status species are defined as:

- species listed or proposed for listing as threatened, rare, or endangered under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA);
- species considered as candidates for listing under the ESA or CESA;
- taxa (i.e., taxonomic category or group) that meet the criteria for listing, even if not currently included on any list, as described in California Code of Regulations (CCR) Section 15380 of the State CEQA Guidelines;
- species identified by the California Department of Fish and Wildlife (CDFW) as Species of Special Concern;
- species listed as Fully Protected under the California Fish and Game Code;
- species afforded protection under local planning documents; and
- taxa considered by the CDFW to be “rare, threatened, or endangered in California” and assigned a California Rare Plant Rank (CRPR).

Special-status species are tracked in CDFW’s California Natural Diversity Database (CNDDB), a statewide inventory of the locations and conditions of the state’s rarest plant and animal taxa and vegetation types. CDFW’s CRPR includes five rarity and endangerment ranks for categorizing plant species of concern. All plants with a CRPR are considered “special plants” by CDFW. The term “special plants” is a broad term used by CDFW to refer to all of the plant taxa inventoried in the CNDDB, regardless of their legal or protection status. Plants ranked as CRPR 1A (plants presumed to be extinct in California), 1B (plants that are rare, threatened, or endangered in California and elsewhere), and 2 (plants that are rare, threatened, or endangered in California but more common elsewhere) may qualify as endangered, rare, or threatened species within the definition of State CEQA Guidelines (CCR Section 15380). In general, plant species ranked CRPR 3 (plants about which more information is needed) and 4 (plants of limited distribution) do not meet the definition of endangered, rare, or threatened pursuant to CEQA Section 15380. As such, CRPR 3 and 4 species are not included in this analysis.

The term “California species of special concern” is applied by CDFW to animals not listed under the federal ESA or CESA, but that are considered to be declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. CDFW’s fully protected status was California’s first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as threatened or endangered under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.

A list of special-status species known or with potential to occur on the project site or in the immediate vicinity was developed from database queries of USFWS' Information for Planning and Consultation (IPaC), CDFW's California Natural Diversity Database (CNDDB), and the California Native Plant Society Inventory (CNPS), together with reconnaissance surveys conducted by Bargas Environmental Consulting biological staff (Grayson Sandy), on May 1 and August 21, 2018.

SPECIAL-STATUS PLANTS

Table BR-1 provides a list of the special-status plant species that have been documented in the CNDDB nine-quadrangle search (Elk Grove, Sloughouse, Carbondale, Galt, Clay, Goose Greek, Lodi North, Lockeford, and Clements USGS 7.5-minute quadrangles) and describes their regulatory status, habitat, and potential for occurrence on the project site.

Table BR-1: Special-Status Plant Species documented in Nine-Quadrangle CNDDB Query

Species	Status [1]			Habitat and Blooming Period	Potential for Occurrence[2]
	USFWS	CDFW	CRPR		
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	–	–	1B.2	Vernal pools and swales in areas of low cover of competing vegetation; most often on gopher turnings along margins of pools or swales (Witham 2006:38); 0 to 1,000 feet elevation. Blooms March-May.	Not expected to occur. Suitable habitat for this species is present on the project site and two known occurrences are present within five miles of the project site.
Bogg's Lake hedge-hyssop *Gratiola heterosepala*	–	E	1B.2	Lake margin marshes and swamps, vernal pools, and other seasonal wetlands, primarily in clay soils; 30 to 8,000 feet elevation. Blooms April–August.	Not expected to occur. While the area on the margins of the stock pond may provide suitable habitat for the species, it is unlikely to exist as the pond is perennially-inundated; moreover, the species was not observed during biological surveys, which were conducted during the blooming period (Bargas 2018).
Legenere *Legenere limosa*	–	–	1B.1	Relatively deep and wet vernal pools (Witham 2006:39); below 3,000 feet elevation. Blooms April–June.	Not expected to occur. Known occurrences are located within 5 miles of the project site. Surveys conducted during blooming period did not detect this species.
Sacramento Orcutt grass *Orcuttia viscida*	E	E	1B.1	Vernal pools; 95 to 325 feet elevation. Blooms April–July.	Not expected to occur. The project site does not fall into the elevation range for this species. Surveys conducted during blooming period did not detect this species. Nearest known occurrence approximately seven miles east of project site.
Sanford's arrowhead *Sagittaria sanfordii*	–	–	1B.2	Shallow freshwater marshes and swamps; below 2,200 feet elevation. Blooms May–October.	Not expected to occur. The project site does not provide potential habitat. Surveys conducted during blooming period did not detect this species. Nearest known occurrence six miles northeast of project site.

Table BR-1: Special-Status Plant Species documented in Nine-Quadrangle CNDDB Query

Species	Status [1]			Habitat and Blooming Period	Potential for Occurrence[2]
	USFWS	CDFW	CRPR		
Succulent owl's clover *Castilleja campestris ssp. succulenta*	T	E	1B.2	Vernal pools and swales; 165 to 2,460 feet elevation. Blooms April – May.	Not expected to occur. The project site is well below the expected elevation range for this species. Surveys conducted during the blooming period did not detect this species.
Pinchushion navarretia *Navarretia myersii ssp. myersii*	-	-	1B.1	Vernal pools; 65 to 1080 feet elevation. Blooms April – May.	Not expected to occur. Surveys conducted during the blooming period did not detect this species.
Tuolumne button celery *Eryngium pinnatisectum*	-	-	1B.2	Vernal pools and similar wet habitat in the hills and grasslands; 230 to 3000 feet elevation. Blooms May – August.	Not expected to occur. The project site is well below the elevation range for this species; moreover, surveys conducted during the blooming period did not detect this species.

Notes: USFWS = U.S. Fish and Wildlife Service; CDFW = California Department of Fish and Wildlife; CRPR = California Rare Plant Rank; CNDDB = California Natural Diversity Database; ESA = Federal Endangered Species Act; CESA = California Endangered Species Act

[1] Legal Status Definitions

U.S. Fish and Wildlife Service:
E Endangered (legally protected)
T Threatened (legally protected)
California Department of Fish and Game:
E Endangered (legally protected)

California Rare Plant Ranks:
1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
2 Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
CRPR Extensions:
.1 Seriously endangered in California (>80% of occurrences are threatened and/or high degree and immediacy of threat)
.2 Fairly endangered in California (20 to 80% of occurrences are threatened)

[2] Potential for Occurrence Definitions
Not expected to occur: Species is unlikely to be present on the project site due to poor habitat quality, lack of suitable habitat features, or species not detected by surveys during blooming period.
Could occur: Suitable habitat is available on the project site; however, there are little to no other indicators that the species might be present.
Sources: Bargas 2018, CDFW 2018, CNDDB 2018, CNPS 2018

No special-status plant species were found on the project site. Biological surveys for special-status plant species were conducted in May and August of 2018 and did not detect any special-status plants.

SPECIAL-STATUS WILDLIFE

Table BR-2 provides a list of the special-status wildlife species that have been documented within the CNDDB nine-quadrangle search area and USFWS IPaC results for Sacramento County. The table describes their regulatory status, habitat, and potential for occurrence on the project site.

Table BR-2: Special-Status Wildlife and their Potential to Occur on the Project Site

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Invertebrates				
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	T	–	Elderberry shrubs below 3,000 feet in elevation, typically in riparian habitats. Found in stems measuring 1 inch or greater at ground level.	Not expected to occur. The project site does not contain elderberry shrubs, which are the sole hosts for this species.
Vernal pool fairy shrimp *Branchinecta lynchi*	T	–	Vernal pools and other seasonal wetlands in valley and foothill grasslands. Tends to occur in smaller wetland features (less than 0.05 acre in size) (USFWS 1994).	Not expected to occur. The study area does not provide suitable habitat for vernal pool invertebrates and is perennially inundated; moreover, the pond is dominated by American bullfrogs and mosquito fish. The nearest documented occurrence is located seven miles east of the project site.
Vernal pool tadpole shrimp *Lepidurus packardi*	E	–	Vernal pools and other seasonal wetlands in valley and foothill grasslands that pond for sufficient duration to allow the species to complete its life cycle. Typically found in ponds ranging from 0.1 to 80 acres in size (USFWS 1994).	Not expected to occur. The study area does not provide suitable habitat for vernal pool invertebrates and is perennially inundated; moreover, the pond is dominated by American bullfrogs and mosquito fish. The nearest documented occurrence is located seven miles east of the project site.
Amphibians and Reptiles				
California red-legged frog *Rana draytonii*	T	SC	Inhabits ponds, slow-moving creeks, and streams with deep pools that are lined with dense emergent marsh or shrubby riparian vegetation. Submerged root masses and undercut banks are important habitat features for this species.	Not expected to occur. No breeding habitat for this species is present on the project site The site is surrounded by suburban development and the species is considered extirpated from the Sacramento Valley floor.
California tiger salamander *Ambystoma californiense*	T	T	Vernal pools and seasonal wetlands with a minimum 10-week inundation period and surrounding uplands, primarily grasslands, with burrows and other belowground refugia (e.g., rock or soil crevices).	Not expected to occur. The study area does not provide suitable habitat for this species. The presence of American bullfrogs makes it highly unlikely that a viable California tiger salamander population could successfully breed in the pond. Moreover, the lack of rodent burrows in the surrounding upland habitat means that summer and fall sheltering habitat is minimal. The nearest documented occurrence is 4.4 miles northeast of the project site.
Giant garter snake *Thamnophis gigas*	T	T	Slow-moving streams, sloughs, ponds, marshes, inundated floodplains, rice fields, and irrigation/drainage ditches on the Central Valley floor with mud bottoms, earthen banks, emergent vegetation, abundant small aquatic prey and absence	Not expected to occur. No suitable habitat occurs on or immediately adjacent to the project site and the project site is located over over a half-mile from Laguna and Badger Creeks. The nearest known occurrence is 3.5 miles southeast of the site at Laguna Creek

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
			or low numbers of large predatory fish. Also require upland refugia not subject to flooding during the snake's inactive season.	(south).
Western pond turtle *Emys marmorata*	–	SC	Forage in ponds, marshes, slow-moving streams, sloughs, and irrigation/drainage ditches; nest in nearby uplands with low, sparse vegetation.	Not expected to occur. The project site does not provide suitable aquatic or upland habitat for this species; No suitable habitat occurs on or immediately adjacent to the project site and the project site is located over over a half-mile from Laguna and Badger Creeks, which is outside of the typical upland distance from aquatic habitat. The two closest known occurrences are approximately four miles from the project site.
Western spadefoot *Spea hammondii*	–	SC	Vernal pools and other seasonal ponds with a minimum three-week inundation period in valley and adjacent foothill grasslands.	Not expected to occur. The pond on the site is perennially inundated.
Birds				
Western burrowing owl *Athene cunicularia* (burrow sites)	–	SC	Nests and forages in grasslands, agricultural lands, open shrublands, and open woodlands with existing ground squirrel burrows or friable soils. Suitable burrow sites consist of short, herbaceous vegetation with only sparse cover of shrubs or taller herbs (Shuford and Gardali 2008: 221).	Not expected to occur. The lack of rodent burrows on-site rules out burrowing owls being present on the site. There are three known occurrences within five miles of the project site.
Song sparrow (Modesto population) *Melospiza melodia*	–	SC	Emergent freshwater marsh dominated by tules, and cattails; willow riparian scrub; valley oak riparian woodland with dense understory; and along vegetated irrigation canals and levees.	Not expected to occur. Project site does not contain suitable habitat.
Swainson's hawk *Buteo swainsoni*	–	T	Forages in grasslands and agricultural lands; nests in riparian and isolated trees.	Could occur. Trees on the project site may be used for nesting. There are 19 known occurrences within 5 miles of the project site. Further discussion below.
Tricolored blackbird *Agelaius tricolor* (nesting colony)	–	SC	Forages in agricultural lands and grasslands; nests in marshes, riparian scrub, and other areas that support cattails or dense thickets of shrubs or herbs. Requires open water and protected nesting substrate, such as flooded, spiny, or thorny vegetation (Schuford and Gardali 2008: 439).	Not expected to occur. The site contains suitable vegetation for tricolored blackbirds; however, the ponded habitat is too small to support a typical breeding colony. Furthermore, the presence of the more aggressive and territorial red-winged blackbird in the pond suggests that colonization and nesting by tricolored blackbirds is highly unlikely. There are 27 known occurrences are located within 5 miles of the project site. Further discussion below.
Common yellowthroat *Geothlypis trichas sinuosa*	-	SC	Breeding habitat typically found in woody swamp, brackicsh marsh, and freshwater	Not expected to occur. Project site does not contain suitable habitat.

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
			marsh (Foster 1977).	
Yellow warbler *Dendroica petechia*	-	SC	Riparian vegetation (shrubs and trees) in close proximity to water along streams and in wet meadows (Lowther et al. 1999).	Not expected to occur. Project site does not contain suitable habitat.

Note: CNDDB = California Natural Diversity Database; USFWS = U.S. Fish and Wildlife Service

[1] Legal Status Definitions

Federal:
E Endangered (legally protected)
T Threatened (legally protected)
D Delisted

State:
D Delisted
FP Fully protected (legally protected)
SC Species of special concern (no formal protection other than CEQA consideration)
E Endangered (legally protected)
T Threatened (legally protected)

[2] Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present on the project site due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

Could occur: Suitable habitat is available on the project site; however, there are little to no other indicators that the species might be present.

Known to occur: The species, or evidence of its presence, was observed on the project site during project surveys, or was otherwise documented.

Source: Foothill 2015; CNDDB 2016, CDFW 2016b; data compiled by Ascent Environmental in 2016

No special-status wildlife species were found on the project site. Biological surveys for special-status species were conducted in May and August of 2018 and did not detect any special-status wildlife. Based on the results of the CNDDB search, the biological reports provided by Bargas, and the IPaC results, it was determined that two special-status wildlife species could occur on the project site—Swainson's hawk and tricolored blackbird. These two species and applicable mitigation are discussed further in the impacts and analysis section.

Sensitive Habitats

Sensitive habitat types include those that are of special concern to CDFW, or that are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, the Porter-Cologne Act, and/or Section 404 of the Clean Water Act (CWA), as discussed further below. Sensitive habitats may be of special concern to regulatory agencies and conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species.

Waters of the Unites States and Waters of the State

The 0.07-acre pond located in the northeast portion of the project could potentially be considered waters of the US and subject to regulation under Section 404 of the CWA. It also has the potential to be considered waters of the state and subject to regulation under the Porter-Cologne Act.

Study Methods

Studies Performed

A reconnaissance level survey for special-status species, specifically vernal-pool branchiopods and California Tiger Salamander, was performed on May 1, 2018 by Grayson Sandy of Bargus Environmental. Prior to conducting the survey of the site, and per accepted protocol, a thorough review of habitat, special-status species, and jurisdictional wetland databases was performed. The databases queried to obtain background information for the study area included Natural Resource Conservation Service (NRCS) Web Soil Survey, California Department of Fish and Wildlife (CDFW Natural Diversity Database (CNDDB), U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC), USFWS National Wetlands Inventory and USFWS Online Critical Habitat Mapper. The CNDDB data was drawn from the Elk Grove, Sloughhouse, Carbondale, Galt, Clay, Goose Creek, Lodi North, Lockeford, and Clements USGS 7.5-minute quadrangles. The IPaC compiles a list of species from Sacramento County.

A second reconnaissance level survey was conducted by Grayson Sandy of Bargus Environmental on August 21, 2018. This survey focused on evaluating the habitat suitability for nesting tricolored blackbird. The pedestrian survey consisted of walking the perimeter of the pond area with an evaluation of current site conditions, and passive observation to listen for birds in the area and observe potential presence of tricolored blackbirds; investigation of potential habitat that could support tricolored blackbird and identification of wildlife and plants observed.

Regulatory Setting

Federal

Clean Water Act

Section 404 of the CWA requires project proponents to obtain a permit from USACE before performing any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters of the United States, interstate waters, tidally influenced waters, and all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Many surface waters and wetlands in California meet the criteria for waters of the United States.

In accordance with Section 401 of the CWA, projects that apply for a USACE permit for discharge of dredged or fill material must obtain water quality certification from the appropriate regional water quality control board (RWQCB) indicating that the action would uphold state water quality standards.

Federal Endangered Species Act

Pursuant to the federal Endangered Species Act (ESA) (16 U.S.C. Section 1531 et seq.), the US Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) regulate the taking of species listed in the ESA as threatened or endangered. In general, persons subject to ESA (including private parties) are prohibited from "taking" endangered or threatened fish and wildlife species on private property, and from "taking" endangered or threatened plants in areas under federal jurisdiction or in violation of state law. Under Section 9 of the ESA, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS has also interpreted the definition of "harm" to include significant habitat modification that could result in take.

Two sections of the ESA address take. Section 10 regulates take if a non-federal agency is the lead agency for an action that results in take and no other federal agencies are involved in permitting the action. However, if a project would result in take of a federally-listed species and federal discretionary action (even if a non-federal agency is the overall lead agency) is involved (i.e., a federal agency must issue a permit), the involved federal agency consults with USFWS under Section 7 of the ESA. Because this project may involve federal permits, interagency cooperation under Section 7 of the ESA is required. Section 7 of the ESA outlines procedures for federal interagency cooperation to protect and conserve federally listed species and designated critical habitat. Section 7(a)(2) requires federal agencies to consult with USFWS and NMFS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it shall be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. Under the MBTA, "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities." A take does not include habitat destruction or alteration, as long as there is not a direct taking of birds, nests, eggs, or parts thereof. The current list of species protected by the MBTA can be found in Title 50 of the Code of Federal Regulations (CFR), Section 10.13. The list includes nearly all birds native to the United States.

State

California Endangered Species Act

Pursuant to CESA, a permit from CDFW is required for projects that could result in the "take" of a plant or animal species that is listed by the state as threatened or endangered. Under CESA, "take" is defined as an activity that would directly or

indirectly kill an individual of a species, but the CESA definition of take does not include "harm" or "harass," like the ESA definition does. As a result, the threshold for take is higher under CESA than under ESA. Authorization for take of state-listed species can be obtained through a California Fish and Game Code Section 2081 incidental take permit.

California Fully Protected Species

Fully protected species are addressed in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take unless a Natural Community Conservation Plan is prepared.

Protection for Birds and Raptors

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptor (e.g., hawks, owls, eagles, and falcons), including their nests or eggs. Section 3513 of the California Fish and Game Code codifies the federal MBTA.

Porter-Cologne Water Quality Act

Under the Porter-Cologne Act, waters of the state fall under the jurisdiction of the appropriate RWQCB. The RWQCB must prepare and periodically update water quality control plans (basin plans). Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control point and nonpoint sources of pollution to achieve and maintain these standards. The RWQCB's jurisdiction includes federally protected waters, as well as areas that meet the definition of "waters of the state." Waters of the state is defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The RWQCB has the discretion to take jurisdiction over areas not federally protected under Section 401 provided they meet the definition of waters of the state. Actions that affect waters of the state, including wetlands, must meet the RWQCB's waste discharge requirements.

Local

Sacramento County General Plan

The following policies of the Conservation Element of the *Sacramento County 2030 General Plan* (Sacramento County 2011) are applicable to the biological resources that may be affected by the project:

Policy CO-58. Ensure no net loss of wetlands, riparian woodlands, and oak woodlands.

Policy CO-59. Ensure mitigation occurs for any loss of or modification to the following types of acreage and habitat function: vernal pools, wetlands, riparian, native vegetative habitat, and special-status species habitat.

Swainson's Hawk Mitigation Fee Program

CDFW requires that mitigation for foraging habitat be provided within the known foraging radius of a nesting Swainson's hawk. In 1997, in response to the need to mitigate for the loss of Swainson's hawk foraging habitat in Sacramento County, the County Board of Supervisors adopted an ordinance that established a Swainson's Hawk Impact Mitigation Program (Chapter 16.130 of the Sacramento County Code). The Swainson's Hawk Impact Mitigation Program has been amended several times; the latest amendment went into effect December 2009. By adopting the Swainson's Hawk Impact Mitigation Program, the Board of Supervisors found that "the most effective means of mitigation for the loss of suitable Swainson's hawk foraging habitat is the direct preservation, in perpetuity, of equally suitable foraging habitat on an acre-per-acre basis based on the Project's determined acreage impact".

Under the Swainson's Hawk Impact Mitigation Program, only projects which have an impact of less than 40 acres are eligible to pay fees. Projects impacting 40 acres or more of foraging habitat must provide land acceptable to Fish and Game and the County. Land can be provided in fee title or through conservation easement. The Sacramento County Department of Planning and Environmental Review administers the Swainson's Hawk Impact Mitigation Program.

Statewide, CDFW recommends implementing the measures set forth in the Fish and Game Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994) for impacts to Swainson's hawk foraging habitat unless local jurisdictions develop an individualized methodology designed specifically for their location. Sacramento County has developed such a methodology and received confirmation from CDFW in May of 2006 that the methodology is a better fit for unincorporated Sacramento County and should replace the statewide, generalized methodology for determining impacts to foraging habitat.

Swainson's hawk foraging habitat value is greater in large expansive open space and agricultural areas than in areas which have been fragmented by agricultural-residential or urban development. The methodology for unincorporated Sacramento County is based on the concept that impacts to Swainson's hawk foraging habitat occur as properties develop to increasingly more intensive uses on smaller minimum parcel sizes. Therefore, the methodology relies mainly on the minimum parcel size allowed by zoning to determine habitat value.

For the purpose of the methodology, properties with zoning of AG-40 and larger are assumed to maintain 100% of their foraging habitat value and properties with AR-5 zoning and smaller are assumed to have lost all foraging habitat value. The methodology does allow case-by-case analysis for projects with unique characteristics.

South Sacramento Habitat Conservation Plan

The South Sacramento Habitat Conservation Plan (SSHCP) area encompasses 317,656 acres in the southern portion of Sacramento County, including portions of unincorporated Sacramento County (County), Galt, and the southern half of Rancho Cordova (Plan Area). The SSHCP is a regional effort that provides development and infrastructure projects with streamlined, predictable federal and state permitting processes while creating a preserve system to protect habitat, open space, and agricultural lands. The SSHCP provides a more effective process for protecting natural resources as compared to the current project-by-project process of mitigation, which often results in small and isolated preserves. The SSHCP will help ensure the creation of large, interconnected preserves that are sustained in perpetuity by an adequately funded management program.

The project site is located within the SSHCP boundaries, but is located outside of the Urban Development Area. The project would not be a covered activity under the SSHCP.

Significance Criteria

Based on Appendix G of the State CEQA Guidelines, the project could have a significant adverse effect on biological resources if it would:

- have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS;
- have a substantial adverse effect on federally protected waters of the United States, including wetlands, as defined by Section 404 of the CWA through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan; or

- 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; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species.

ISSUES NOT DISCUSSED FURTHER

Implementation of the project is not likely to adversely affect important wildlife corridors. The project site is surrounded on three sides by existing residential development and agricultural fields to the east and does not connect any important habitat areas. Therefore, any potential impacts to wildlife movement and wildlife corridors are not considered significant and are not further addressed in this EIR. Additionally, areas that would be affected by construction on the project site are not known to contain native wildlife nursery sites, such as colonial bird rookeries or bat roosts. Therefore, this issue is not discussed further in this EIR.

Implementation of the project is not likely to adversely affect special-status plant species. Three special-status plant species (Ahart's dwarf rush, Bogg's Lake hedge-hyssop, and Sanford's arrowhead) were identified as having potential to occur on the project site based on the presence of suitable habitat. Focused surveys for listed vernal pool plant species were conducted in May and August of 2018 (blooming period for these species) by Bargas Environmental Consulting, did not detect any vernal pool plant species, and further did not detect any special-status plant species. The project construction will not take place in the ponded area of the parcel and therefore does not have the potential to impact any special-status plant species. Therefore, this issue is not discussed further in this EIR.

While the ponded area could potentially be considered waters of the US and/or state, the project will not result in the loss of these waters as the proposed project site is located over 150 feet from the pond. Therefore this issue is not discussed further in the EIR.

IMPACTS AND ANALYSIS

METHODOLOGY

The following analysis is based on site conditions documented in the biological reports provided by Bargas Environmental (May and August, 2018).

IMPACT: DISTURBANCE OF MIGRATORY BIRDS NESTS

Implementation of the project could adversely affect common migratory birds through disturbance during the breeding season. Loss of active nests of common species would be inconsistent with the MBTA; however, the list of migratory birds includes many common species not otherwise protected under federal, state, or local laws. Loss of active nests of common species during project construction would not substantially reduce the abundance of any species, nor cause the abundance of any species to decline below self-sustaining levels.

Impacts to migratory birds are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-1), impacts to nesting migratory birds will be ***less than significant***.

Impact: Disturbance of 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(18) of FESA 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.

Although there are no CNDDB records of these species on the project site or within 5 miles of the project site, suitable habitat for nesting birds of prey is present. If construction will occur during the nesting season of March 1 to September 15, preconstruction surveys will be required to ensure that construction activities do not agitate nesting birds of prey, potentially resulting in nest abandonment or other harm to nesting success (Mitigation Measure BR-2). If nests are found, the developer is required to contact CDFW 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.

Impacts to nesting birds of prey are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-2), impacts to nesting birds of prey will be ***less than significant***.

Impact: Disturbance of Swainson’s hawk nests

Swainson’s hawk is listed as threatened under CESA and has the potential to nest on the project site. Trees located around the project site provide potential habitat for Swainson’s hawk. Reconnaissance surveys of the site did not detect the species or its

nests and there are no records of these species nesting on the site; however, CNDDB records indicate that 19 sightings of Swainson's hawk have been sighted within 5 miles of the project site. Preconstruction surveys will be required to ensure that construction activities do not agitate nesting hawks, potentially resulting in nest abandonment or other harm to nesting success (Mitigation Measure BR-3).

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 Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994), the mitigation described above will ensure that impacts to nesting Swainson's hawk will be less than significant.

Impacts to Swainson's hawk are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-3), impacts to nesting Swainson's hawk will be ***less than significant***.

Impact: Swainson's Foraging Habitat

As described in the Regulatory Section, properties with zoning of AG-40 and larger are assumed to maintain 100% of their foraging habitat value and properties with AR-5 zoning and smaller are assumed to have lost all foraging habitat value. Per the methodology, the subject parcel contains no foraging habitat value and impacts to Swainson's hawk foraging habitat are considered ***less than significant.***

Impact: Disturbance of tricolored blackbird nests

Tricolored blackbird are listed as a CDFW Species of Special Concern. The ponded area of the property contains suitable habitat for the species and noise generated by construction activity could potentially agitate nesting tricolored blackbirds, potentially resulting in nest abandonment. Focused surveys for the species did not detect tricolored blackbirds or any special-status bird species. The biological report, dated September 17, 2018, found that while the pond contained the appropriate wetland vegetation, its small size (0.07 acres) would make it highly unlikely to support a tricolored blackbird breeding colony.

Tricolored blackbirds are colonial nesting birds, generally nesting very close to one another and often in large groups (UC Davis, 2018). Colonies have been found to vary in size from a minimum of 50 nests to more than 20,000 in one colony (Zeiner et al., 1988-1990).

Survey Results

The study area contains the appropriate wetland vegetation required to support nesting tricolored blackbirds, however, the pond and its freshwater emergent wetland habitat are only 0.07 acres (3,049 square feet) in size making it highly unlikely to support a tricolored blackbird breeding colony. According to Audubon California's web page on tricolored blackbirds, their nesting habitat occurs in, "marsh with cattails or bulrushes, or in willows at water's edge" (UC Davis, 2018). Tricolored blackbirds are colonially nesting birds, generally nesting very close to one another and often in large groups (UC Davis, 2018). Colonies have been found to vary in size from a minimum of 50 nests to more than 20,000 in one colony (Zeiner et al., 1988-1990). Typically, there is one nest per every 21.5 square feet, but additional dense vegetation is needed as a protective buffer against predators (Kyle, 2011). Current research suggests that tricolored blackbirds in some areas of the Central Valley are trending towards more numerous small colonies, where in the past they tended towards very large single colonies (UC Davis, 2018). There are ten CNDDB occurrences for tricolored blackbird colonies located within three miles of this study area, most having been recorded in 2014 and 2015 and concentrated along Twin Cities Rd approximately 1.5 to 3 miles to the southeast. This means that the study area pond could potentially be colonized by birds dispersing from those locations. However, the habitats present at the locations of the CNDDB records are larger continuous freshwater emergent wetlands than what is present in the study area, making these areas more preferable to this species. Further, a colony of red-winged blackbirds (A. phoeniceus) was observed within the pond habitat actively displaying and singing during the 01 May 2018 site survey; none were observed during the August 22, 2018 site survey. The red-winged blackbirds were displaying mating behaviors including singing, wing displays and general territoriality. The presence of the more aggressive and territorial red-winged blackbirds in a pond of this size suggests that colonization and nesting by tricolored blackbirds is highly unlikely.

CNDDB records indicate that there are 10, recorded occurrences within three miles of the project site. Ten of the records were concentrated along Twin Cities Road, approximately 1.5 to 3 miles to the southeast at habitats locations containing much larger continuous freshwater emergent wetlands than what is present at the site, making these larger bodies of water more preferable for the species.

Impacts to tricolored blackbird are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-4), impacts to nesting tricolored blackbirds will be ***less than significant***.

Impact: Loss of special-status vernal pool invertebrates and California Tiger Salamander

Vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardi*) are both federally protected species. Biological surveys for the species were conducted after members of the public voiced concern that the pond could potentially support vernal pool invertebrates and that the project could impact them.

California tiger salamander (*Ambystoma californiense*) are listed as a federally endangered species. The nearest documented occurrence is 4.4 miles northeast of the project site. Biological surveys for the species were conducted after members of the public and a biologist hired by a neighbor to the project site voiced concern that the pond and surrounding upland area was suitable habitat for the species.

Survey Results

The biological report, dated May 7, 2018, found that the study area does not provide suitable habitat for vernal pool invertebrates or California Tiger Salamander. The aquatic wildlife within the pond is dominated by invasive American bullfrogs and planted mosquito fish. The nearest CNDDB occurrence for California tiger salamander is more than three miles east of the study area. The presence of American bullfrogs makes it highly unlikely that a viable California tiger salamander population could successfully breed in this pond. Moreover, the lack of rodent burrows in the surrounding upland habitat means that summer and fall sheltering habitat for California tiger salamanders in minimal.

The wetlands present within the study area do not provide suitable habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp. The nearest CNDDB occurrence for vernal pool fairy shrimp is approximately 0.5 miles west of the study area. The amount of perennial freshwater emergent vegetation present in the pond implies that the pond is likely perennially-inundated, thus providing poor habitat for vernal pool invertebrates. . Impacts to vernal pool invertebrates and California tiger salamander are ***less than significant.***

Mitigation Measures

Mitigation Measure BR-1: Nesting Migratory Birds

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. 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 BR-2: Nesting birds of prey surveys

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 and ground nesting 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 CDFW 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. If no active nests are found during the focused survey, no further mitigation will be required.

Mitigation Measure BR-3: Swainson's hawk nest surveys

If construction, grading, or project-related improvements are to commence between March 1 and September 15, a focused survey, pursuant to CDFW guidelines, for Swainson's hawk nests on the site and within 1/2 mile of the site shall be conducted by a qualified biologist no later than 30 days prior to the start of construction work (including clearing and grubbing). 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 BR-4: Tricolored blackbird nest surveys

If construction activity (which includes clearing, grubbing, or grading) is to commence within 300 feet of the project site between March 1 and July 31, a survey for nesting tricolored blackbirds shall be conducted by a qualified biologist. The survey shall cover all potential nesting habitat on-site and off-site up to a distance of 300 feet from the project boundary. The survey shall occur within 30 days of the date that construction will encroach within 300 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 tricolored blackbird were found during the pre-construction survey, no further mitigation would be required. If an active tricolored blackbird colony is found on-site or within 300 feet of the project site the project proponent shall do the following:

1. Consult with CDFW to determine if project activity will impact the tricolored blackbird colony(s). Implement all protective measures recommended by CDFW. Provide the Environmental Coordinator with written evidence of the consultation or a contact name and number from CDFW.

If no active nests are found during the focused survey, no further mitigation will be required.

12 SUMMARY OF IMPACTS & AND THEIR DISPOSITION

SIGNIFICANT EFFECTS WHICH CANNOT BE AVOIDED

A “significant and unavoidable impact” is an impact that exceeds the defined standards of significance and cannot be eliminated or reduced to a less-than-significant level through the implementation of mitigation measures. **There were no project related impacts determined to be significant and unavoidable.**

POTENTIALLY SIGNIFICANT EFFECTS WHICH COULD BE AVOIDED WITH IMPLEMENTATION OF MITIGATION MEASURES

BIOLOGICAL RESOURCES

The following impacts are potentially significant depending on the presence or absence of the species, which will be determined during pre-construction surveys. If present, mitigation is proposed to reduce the impact to less than significant. If absent, there would be no impact.

NESTING MIGRATORY BIRDS

Implementation of the project could adversely affect common migratory birds through disturbance during the breeding season. Loss of active nests of common species would be inconsistent with the MBTA; however, the list of migratory birds includes many common species not otherwise protected under federal, state, or local laws. Loss of active nests of common species during project construction would not substantially reduce the abundance of any species, nor cause the abundance of any species to decline below self-sustaining levels.

Impacts to migratory birds are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-1), impacts to nesting migratory birds will be ***less than significant***.

NESTING BIRDS OF PREY

Although there are no CNDDB records of these species on the project site or within 5 miles of the project site, suitable habitat for nesting birds of prey is present. If construction will occur during the nesting season of March 1 to September 15, preconstruction surveys will be required to ensure that construction activities do not agitate nesting birds of prey, potentially resulting in nest abandonment or other harm to nesting success (Mitigation Measure BR-1). If nests are found, the developer is required to contact CDFW 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.

Impacts to nesting birds of prey are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-2), impacts to nesting tricolored blackbirds will be ***less than significant***.

Disturbance of Swainson's hawk nests

If any Swainson's hawk nests are found on the project site before construction commences, construction-related disturbance of the nests may result in nest abandonment and mortality of chicks or eggs of these species. Implementation of Mitigation Measure BR-2 would reduce this impact by requiring pre-construction surveys and avoidance of pre-existing, active nests during construction using non-disturbance buffers.

Impacts to Swainson's hawk are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-3), impacts to nesting tricolored blackbirds will be ***less than significant***.

Disturbance of tricolored blackbird nests

No tricolored blackbirds were observed during biological surveys of the site and no suitable nesting habitat was found on-site. CNDDB records did indicate occurrences of the species within a five-mile radius of the project site. While it is considered unlikely to find this species nesting on the project parcel, mitigation has been proposed If construction activities are proposed during the breeding season (March 1 through July 31). Pre-construction surveys shall be conducted within 300 feet of the Project site. If tricolored blackbirds are found nesting within 300 feet of the survey area, the CDFW shall be contacted and appropriate avoidance and impact minimization measures shall be implemented. This may include establishing a buffer or postponing construction until fledging of all nestlings (about July 31). Specific measures cannot be outlined at this time, because the extent and type of measures required are highly situational, depending on distance to the nest, the number of nesting individuals, the type of nesting substrate, and other factors. If no tricolored blackbirds are found during the pre-construction survey, no further mitigation would be required.

Impacts to tricolored blackbird are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-4), impacts to nesting tricolored blackbirds will be ***less than significant***.

Cultural Resources

Adverse Effects on Important Cultural Resources

Although no National Register of Historic Places- or California Register of Historical Resources-listed or eligible resources, unique archaeological resources, tribal cultural resources, or traditional cultural properties have been documented in the project site, the project is located in a region where significant prehistoric and historic-era cultural resources have been recorded and there remains a potential that undocumented cultural resources could be unearthed or otherwise discovered during ground-disturbing and construction activities. Implementation of Mitigation Measure CR-1 would reduce this impact by ensuring that any undocumented cultural resources or inadvertent discoveries of cultural resources made during construction or ground-disturbing activities would be properly recorded and the historical significance of the resources documented.

Effects Found Not to be Significant

Impacts associated with land use, hydrology and water quality, public services, traffic and circulation, noise, air quality, biological resources, and greenhouse gases and climate change **are considered less than significant**.

Irreversible Environmental Changes

CEQA requires that EIRs assess whether a project would result in significant irreversible changes to the physical environment. The State CEQA Guidelines discuss three categories of significant irreversible changes that should be considered. Each is addressed below. Although the project would require commitment of resources, these environmental changes are not considered significant for the purposes of this analysis.

Growth Inducing Impact

As required by Section 15126.2(d) of the State CEQA Guidelines, an EIR must discuss ways in which a project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, through the stimulation of economic activity within the region, or through the establishment of policies or other precedents that directly or indirectly encourage additional growth. Although growth inducement itself is not considered an environmental effect, it could potentially lead to adverse environmental effects.

The proposed project does not involve the construction of housing, nor will it generate economic growth as the proposed facility will not increase employment by any substantial amount as a result of the project. The surrounding properties are

agricultural-residential and agricultural in nature and are not intended to develop to a high density.

The project would utilize an existing private well, private septic system, existing **SMUD** electrical **facilities** **(overhead 12 kV)** and gas utility connections, and would not require an expansion of public utilities or services. Access to the property is provided by a private road. The facility would not be open to the public and therefore, daily estimate of 10 total trips would not significantly contribute to roadway congestion or significantly impact existing transit facilities.

Based on the foregoing discussion, the project will not induce growth and impacts are considered less than significant.

Areas of Known Controversy

Several residents near the proposed project site have expressed concern over the project. Concerns expressed are related to noise, water quality, endangered species, disease transmission, waste disposal, odor, and traffic. Disagreement with the Planning Director's determination that the proposed project is similar in nature to a kennel, as defined in the Zoning Code, has also been expressed.

Cumulative Impacts

The CEQA Guidelines Section 15355 defines a cumulative impact as "two or more individual effects which, when considered together, are considerable". An individual effect need not itself be significant to result in significant cumulative effects; the impact is the result of the incremental effects of the Project combined with the effects of "other closely related past, present, and reasonably foreseeable probable future projects." CEQA does not define "closely related", but the Code of Federal Regulations (40 CFR 1508.25) indicates that a "closely related" project is one which is automatically triggered by the Project; one which cannot proceed without the Project first proceeding (mutual dependency); one which requires the Project for justification or is an interdependent part of the same action; or one which is a similar action with common timing, geography, and other features.

The requirements for a cumulative analysis are described in CEQA Guidelines Section 15130. A cumulative analysis "need not provide as great detail as is provided for the effects attributable to the project alone." The analysis should focus on analyzing the effects of the project to which other projects contribute, to the extent practical and reasonable. These other projects may be identified either through the provision of a list of cumulative projects, or via a summary of projections contained in an adopted General Plan or an adopted EIR. This EIR uses the latter approach as the project area is outside the Urban Services Boundary, and the general area is rural in nature and not proposed for development within the General Plan.

Land Use

As discussed in the Land Use chapter, the project will not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to a general plan, specific plan or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect, and no cumulative impacts related to land use have been identified.

Hydrology, Drainage, and Water Quality

Drainage from the proposed facility will be directed toward a dedicated septic system that appears to be able meet all setback requirements. The project would not cause violation of a water quality standard or waste discharge requirement and would not result in substantial increases to polluted runoff. The project will not contribute to a cumulatively considerable impact.

Public Services

The project site is located in an existing Agricultural-Residential community that has existing electricity, solid waste, police, and fire services. The proposed facility is similar to other facilities in the surrounding area (e.g. barns and agricultural outbuildings) that are typical of rural agricultural uses. Service providers have reviewed the proposed project and generally had no comment on its impact to service levels. The Public Services chapter concluded that there were no significant impacts to these services and no cumulative impacts related to public services have been identified.

Traffic

DOT typically requires a traffic study when a project will result in more than 100 peak hour trips, or more than 1,000 daily trips. DOT staff (Kamal Atwal, P.E.) provided a trip generation table on September 29, 2017. The project was shown to generate 10 daily trips and one additional truck trip per week, and a traffic study was not required. The Traffic chapter, therefore, concluded that there were no significant impacts, and no cumulative impacts related to traffic were identified.

Air Quality

Project construction and operation of the foreseeable development projects in the County and surrounding areas will result in the generation of ozone precursors and particulate matter. Due to past, present, and future development within the Sacramento Valley Air Basin (SVAB), the SVAB is in nonattainment for ozone and particulate matter. This is considered a significant cumulative impact and all projects in the region would contribute to this impact. Because of this, SMAQMD thresholds are relevant to whether a project has a cumulatively considerable contribution to the existing condition. According to the SMAQMD methodology, if a project's singular contribution can be considered less than significant, than the project's cumulative contribution is not considered cumulatively considerable and therefore, cumulative impacts are less than significant.

The proposed project's construction emissions showed that the proposed project would not exceed SMAQMD's significance thresholds for ozone precursors and PM_{10} during construction and operation. Based on SMAQMD's approach to cumulative impacts, the proposed project would have a less than significant cumulative contribution to construction emissions and operational emissions.

Noise

As discussed in the Noise chapter, the project will not generate noise levels in exceedance of Sacramento County standards and are, therefore, less than significant. Only projects within the direct vicinity would contribute to noise from the project thereby resulting in a cumulative noise impact. The area surrounding the project site is agricultural in nature and typical sounds include noise from farm equipment as well as animals. The noise analysis prepared for the project included the noise generated from this surrounding development. There are no known reasonably foreseeable projects included in this cumulative analysis near vicinity of the project site, and the proposed project is not expected to combine with noise from the surroundings to create a cumulative impact. The proposed project would have a less than significant cumulative contribution to noise impacts.

Cultural Resources

Cumulative development in Sacramento County could significantly impact historic, archaeological, paleontological, geologic, or human resources. The archaeology of prehistoric resources in their original contexts is crucial in developing an understanding of the social, economic, and technological character of the resources. The boundaries of an archaeologically important site could extend beyond property boundaries. As a result, a meaningful approach to preserving and managing cultural research should focus on the likely distribution of cultural resources, rather than on Project or parcel boundaries. The cultural system is represented archaeologically by the total inventory of all sites and other cultural remains. However, proper planning and appropriate mitigation can help to capture and preserve knowledge of such resources and can provide opportunities for increasing understanding of the past environmental conditions and cultures by recording data about any sites discovered and preserving artifacts found. Based on the findings of the records and literature search and field survey, mitigation has been proposed that attempts to document and preserve cultural resources that may be encountered during construction of this project as well as other cumulative projects. This mitigation limits the cumulative contribution of impacts to cultural resources within the County. The project would have a less than significant cumulative contribution to cultural resources impacts.

Greenhouse Gasses and Climate Change

Climate change is by nature a cumulative impact, and the significance threshold is based on cumulative growth projections and the limits which must be set in order to meet reduction targets by the year 2020. To that extent, the cumulative analysis has already been completed. The GHG emissions from the proposed project would not exceed the County's thresholds for energy and mobile source GHG emissions,

therefore the singular impacts from the project were found to be less than significant. The project's contribution to climate change, therefore, is not considered cumulatively considerable.

Biological Resources

The project site was found to have suitable habitat for nesting Swainson's hawk, nesting raptors, and nesting migratory birds. Habitat was found to be unsuitable for vernal pool crustaceans, California tiger salamander, and tricolored blackbird. Surveys of the site did not detect any special-status species on the project site. Mitigation has been included to perform pre-construction surveys for Swainson's hawk, raptors, and migratory birds to ensure they have not nested on-site prior to any ground disturbance or construction activity. Despite concluding that there is no suitable habitat for tricolored blackbird it was noted that occurrences of these species have been documented within five miles of the project site. Mitigation has, therefore, been included to conduct pre-construction surveys for nesting tricolored blackbird.

Singularly, projects are required to mitigate their biological impacts and generally it is determined that such mitigation reduces individual impacts to less than significant. The project will be required to implement protective measures should the aforementioned species be discovered during pre-construction surveys. Therefore, the project is considered to have a **less than significant** cumulative impact.

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14 GLOSSARY OF ACRONYMS/ABBREVIATIONS

AB	Assembly Bill
ADA	American with Disabilities Act
ARB	California Air Resources Board
BMPs	Best Management Practices
CalEEMod	California Emissions Estimator Model
CalFire	California Department of Forestry and Fire Protection
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAAQS	California ambient air quality standards
CAP	Climate Action Plan
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish & Wildlife
CDWR	California Department of Water Resources
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFCs	chlorofluorocarbons
CFR	Code of Federal Regulations
CH_4	methane
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent level
CNPS	California Native Plant Society Inventory
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2E	carbon dioxide equivalent
CPAC	Community Planning Advisory Council
CRHR	California Register of Historic Resources
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB	decibels
dBA	A-weighted sound levels
DOT	County of Sacramento Department of Transportation
DWR	County of Sacramento Department of Water Resources
EIR	Environmental Impact Report
EMD	County of Sacramento Environmental Management Department
EMFAC	Emission Factors Model
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Species Act
FEMA	Federal Emergency Management Agency

GFAS	Global Federation of Animal Sanctuaries
GHG	greenhouse gases
GWP	global warming potential
HAPs	hazardous air pollutants
HFCs	fluorinated gases hyrofluorocarbons
HFPD	Herald Fire Protection District
IPaC	Information for Planning and Consultation
IPCC	Intergovernmental Panel on Climate Change
L_{50}	noise level that is exceeded 50% of a given period
L_{eq}	Equivalent Noise Level
L_{dn}	Day-Night Noise Level
L_{min}	Minimum Noise Level
L_{max}	Maximum Noise Level
L_v	the root mean square velocity expressed in vibration decibels
LDSIR	Land Division and Site Improvement Review
LID	Low Impact Development
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MT	metric tons
MMT	millions metric tons
MPO	Metropolitan Planning Organization
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NESHAP	National Emissions Standards for hazardous air pollutants
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NO_X	oxides of nitrogen
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OEHHA	Office of Environmental Health Hazard Assessment
PER	County of Sacramento Office of Planning & Environmental Review
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric
$PM_{2.5}$	respirable particulate matter with an aerodynamic diameter of 2.5 micrometers
PM_{10}	respirable particulate matter with an aerodynamic diameter of 10 micrometers
PPV	peak particle velocity
PRC	Public Resources Code
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board

SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SEL	Sound Exposure Level
SF_6	sulfur hexafluoride
SIP	State implementation plan
SMAQD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Metropolitan Utility District
SO_2	sulfur dioxide
SSHCP	South Sacramento Habitat Conservation Plan
SSQP	Sacramento Stormwater Quality Partnership
SVAB	Sacramento Valley Air Basin
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
USB	Urban Service Boundary
USFWS	United States Fish & Wildlife Service
UPZ	Conditional Use Permit
VdB	vibration decibels
VMT	vehicle miles traveled
VTE	Vehicle Trips Ends

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16 RESPONSE TO COMMENTS

The Draft Environmental Impact Report (DEIR) was released on March 27, 2019, with a 45-day public review period. The review period for the DEIR closed on May 10, 2010, 2019. Two comment letters were received during the comment period; both of which are included at the end of this chapter. Each comment has been given a numeric designation (e.g. Letter 1) as identified below.

List of Written Comments on the DEIR

1. Central Valley Regional Water Quality Control Board (CVRWQCB), Jordan Hensley, via certified mail (May 3, 2019)

2. Sacramento Municipal Utilities District (SMUD), Nicole Goi, via email (May 8, 2019)

Each DEIR comment letter is detailed below with the text of the submitted comments and a response to each comment. Individual comments addressing separate subjects within each letter are labeled in this chapter based on the letter's numeric designation and comment number (e.g. 1-1). Note that the preface language of the letters is often excluded (where the text consists of salutations and brief descriptions of the commenting organization).

Where changes to the text of the EIR are required because of the comments received, those changes are shown with **bold underline** for text added and ~~strikethrough~~ for text deleted within the pertinent chapter(s).

In some cases, the response to comment is "comment noted." Pursuant to Sections 15088 and 15204 of the CEQA Guidelines, no written responses are provided for those letters or comments that do not address significant environmental issues. While no response to the comment is provided, the comment letters are forwarded to the Board of Supervisors for their consideration.

LETTER 1

Central Valley Regional Water Quality Control Board (CVRWQCB), Jordan Hensley, via certified mail (May 3, 2019)

COMMENT 1-1

The comment letter provides an overview of the CVRWQCB's Basin Plan, the Antidegradation Policy, and permitting requirements that may apply to the project.

RESPONSE 1-1

Comment noted. The comments provided by CVRWQCB are not specific to the Project or the environmental document, but rather provide a broad overview of the regulatory setting that may by applicable to the Project. The project proponent will ensure all applicable permits and regulations are obtained and adhered to as part of project implementation.

LETTER 2

Sacramento Municipal Utilities District (SMUD), Nicole Goi, via email (May 8, 2019)

COMMENT 2-1

It is our desire that the Project EIR will acknowledge any Project impacts related to the following:

- Overhead and or underground transmission and distribution line easements. Please view the following links on smud.org for more information regarding transmission encroachment:
    - https://www.smud.org/en/Business-Solutions-and-Rebates/Design-and-Construction-Services
    - https://www.smud.org/en/Corporate/Do-Business-with-SMUD/Land-Use/Transmission-Right-of-Way
- Utility line routing
- Electrical load needs/requirements
- Energy Efficiency
- Climate Change
- Cumulative impacts related to the need for increased electrical delivery
- The potential need to relocate and or remove any SMUD infrastructure that may be affected in or around the project area

RESPONSE 2-1

The above topical areas have been discussed throughout the EIR as applicable. See the Project Description, Public Services, Greenhouse Gases & Climate Change, and Summary of Impacts and their disposition.

COMMENT 2-2

More specifically, SMUD would like to have the following details related to the electrical infrastructure incorporated into the project description:

- The Project Site has existing overhead 12kV facilities in the south west [sic] corner of the property.

RESPONSE 2-2

The following language has been added to the Project Description chapter:

- **The project site has existing SMUD overhead 12kV facilities in the southwest corner of the property.**

COMMENT 2-3

SMUD would like to be involved with discussing the above areas of interest as well as discussing any other potential issues. We aim to be partners in the efficient and sustainable delivery of the proposed Project. Please ensure that the information included in this response is conveyed to the Project planners and the appropriate Project proponents.

RESPONSE 2-3

This is not a comment on the adequacy of the environmental document. The comment has been forwarded to the applicant, so they can coordinate with SMUD.

CALIFORNIA
Water Boards

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

3 May 2019

Tim Hawkins
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CERTIFIED MAIL
7017 2620 0001 1359 1991

COMMENTS TO REQUEST FOR REVIEW FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, SQUIRREL MONKEY HAVEN PROJECT, SCH#2018072056, SACRAMENTO COUNTY

Pursuant to the State Clearinghouse's 27 March 2019 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Draft Environmental Impact Report* for the Squirrel Monkey Haven Project, located in Sacramento County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases,

the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

> *Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.*
>
> *This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.*

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]
The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit
Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

Clean Water Act Section 404 Permit
If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

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[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Clean Water Act Section 401 Permit – Water Quality Certification
If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

For more information on the Water Quality Certification, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State
If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Waste Discharge Requirements – Discharges to Land
Pursuant to the State Board's Onsite Wastewater Treatment Systems Policy, the regulation of the septic system may be regulated under the local agency's management program.

For more information on waste discharges to land, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_land/index.shtml

Dewatering Permit
If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver) R5-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Risk General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Risk Waiver and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2013-0145_res.pdf

Regulatory Compliance for Commercially Irrigated Agriculture
If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program. There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: https://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/regulatory_information/for_growers/coalition_groups/ or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.

2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100**. Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 11-100 acres are currently $1,277 + $8.53/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory Program, call the Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

Limited Threat General NPDES Permit
If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order.

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:

https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit.

For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4812 or Jordan.Hensley@waterboards.ca.gov.

Jordan Hensley
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

Sent Via E-Mail

May 8, 2019

Tim Hawkins
Office of Planning and Environmental
Sacramento County
827 7th Street, Room 225
Sacramento, CA 95814

Subject: Squirrel Monkey Haven / DEIR / 2018072056

Dear Tim Hawkins,

The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide comments on the Draft Environmental Impact Report (DEIR) for the Squirrel Monkey Haven Project (Project, 2018072056). SMUD is the primary energy provider for Sacramento County and the proposed Project area. SMUD's vision is to empower our customers with solutions and options that increase energy efficiency, protect the environment, reduce global warming, and lower the cost to serve our region. As a Responsible Agency, SMUD aims to ensure that the proposed Project limits the potential for significant environmental effects on SMUD facilities, employees, and customers.

It is our desire that the Project DEIR will acknowledge any Project impacts related to the following:

- Overhead and or underground transmission and distribution line easements. Please view the following links on smud.org for more information regarding transmission encroachment:
  - https://www.smud.org/en/Business-Solutions-and-Rebates/Design-and-Construction-Services
  - https://www.smud.org/en/Corporate/Do-Business-with-SMUD/Land-Use/Transmission-Right-of-Way
- Utility line routing
- Electrical load needs/requirements
- Energy Efficiency
- Climate Change
- Cumulative impacts related to the need for increased electrical delivery
- The potential need to relocate and or remove any SMUD infrastructure that may be affected in or around the project area

More specifically, SMUD would like to have the following details related to the electrical infrastructure incorporated into the project description:

- The Project Site has existing overhead 12kV facilities in the south west corner of the property.

SMUD would like to be involved with discussing the above areas of interest as well as discussing any other potential issues. We aim to be partners in the efficient and sustainable delivery of the proposed Project. Please ensure that the information included in this response is conveyed to the Project planners and the appropriate Project proponents.

Environmental leadership is a core value of SMUD and we look forward to collaborating with you on this Project. Again, we appreciate the opportunity to provide input on this DEIR. If you have any questions regarding this letter, please contact SMUD's Environmental Management Specialist, Ashlen McGinnis at Ashlen.Mcginnis@smud.org or 916.732.6775.

Sincerely,

Nicole Goi
Regional & Local Government Affairs
Sacramento Municipal Utility District
6301 S Street, Mail Stop A313
Sacramento, CA 95817
nicole.goi@smud.org

Cc: Ashlen McGinnis

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. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to a general plan, specific plan or zoning ordinance) 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, Southeast Area Community Plan, 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 consists of the construction of a squirrel monkey sanctuary for the keeping of retired research monkeys, and therefore will neither directly nor indirectly induce substantial unplanned population growth.
b. Displace substantial amounts of existing 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.
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		Though in an area where agricultural uses occur, the project will not substantially interfere with agricultural operations, because kennels are considered a generally compatible use within agricultural and agricultural/residential areas. Assuming compliance with the standards of Animal Care and Regulation, no significant impacts are expected.Please refer to Chapter 3 "Land Use."
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, corridors, or vistas. Furthermore, the facility is a prefacbricated metal structure, akin to many agricultural accessory structures in the area.
b. Substantially degrade the existing visual character or quality of the site and its surroundings?			X		Construction will not substantially degrade the visual character or quality of the project site. Furthermore, the facility is a prefacbricated metal structure, akin to many agricultural accessory structures in the area.
c. 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 occurs outside of any identified public or private airport/airstrip safety zones.
b. Expose people residing or working in the project area to aircraft noise levels in excess of applicable standards?				X	The project occurs outside of any identified public or private airport/airstrip noise zones or contours.
c. Result in a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft?				X	The project does not affect navigable airspace.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
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 water to for facility operations. The project is proposing to use the existing private well. The proposed facility plan estimates 41,000 gallons of water will be used annually (112 gallons per day) for facility needs including monkey drinking water, cleaning, and landscaping. On average, each person in a household uses about 100 gallons of water a day. The project 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. Please refer to Chapter 5 “Public Services” of the EIR.
b. Have adequate wastewater treatment and disposal facilities for full buildout of the project?			X		Septic systems would be required. Refer to Chapter 5 “Public Services” for further discussion.
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. Please refer to Chapter 5 “Public Services” for further discussion.
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 is located outside of the Urban Service Boundaries and would not rely upon public water or public sewage facilities. 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. Please refer to Chapter 4 “Hydrology, Drainage, & Water Quality” of the EIR.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
f. Result in substantial adverse physical impacts associated with the provision of electric or natural gas service?			X		Electricity and natural gas services for the project would be provided by SMUD and PG&E, respectively. The project would increase electricity and natural gas consumption and require new utility connections. These utilities would likely be installed underground, and no offsite extensions would be needed. No significant new impacts would result from utility extension. Please refer to Chapter 5 "Public Services" for further discussion.
g. Result in substantial adverse physical impacts associated with the provision of emergency services?			**X**	~~X~~	The project is not proposing any new residential construction and would not result in the need for additional demand in fire protection or police protection.
h. Result in substantial adverse physical impacts associated with the provision of public school services?				X	The project will not require the use of public school services.
i. Result in substantial adverse physical impacts associated with the provision of park and recreation services?				X	The project will not require park and recreation services.
7. **TRANSPORTATION/TRAFFIC** - Would the project:					
a. Result in a substantial increase in vehicle trips that would exceed, either individually or cumulatively, a level of service standard established by the County?			X		The project will result in minor increases in vehicle trips, but this increase will not cause, either individually or cumulatively, a level of service standard established by the County to be exceeded. Please refer to Chapter 6 "Traffic/Circulation".
b. Result in a substantial adverse impact to access and/or circulation?			X		No changes to existing access and/or circulation patterns would occur as a result of the project. Please refer to Chapter 6 "Traffic/Circulation".
c. Result in a substantial adverse impact to public safety on area roadways?			X		No changes to existing access and/or circulation patterns would occur as a result of the project; therefore no impacts to public safety on area roadways will result. Please refer to Chapter 6 "Traffic/Circulation".

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
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.
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. Compliance with existing dust abatement rules and standard construction mitigation for vehicle particulates will ensure that construction air quality impacts are less than significant. The California Emissions Estimator Model (CalEEMod) was used to analyze ozone precursor emissions; the project will not result in emissions that exceed standards. Please refer to Chapter 7 “Air Quailty” & Chapter 10 “Greenhouse Gases & Climate Change” for further discussions.
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. See Response 8.a.
c. Create objectionable odors affecting a substantial number of people?			X		The project will not generate objectionable odors. Please refer to Chapter 7 “Air Quality” of the EIR.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
9. **NOISE -** Would the project:					
a. Result in exposure of persons to, or generation of, noise levels 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. Please refer to Chapter 8 “Noise” of the EIR.
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). Please refer to Chapter 8 “Noise” of the EIR.
10. **HYDROLOGY AND WATER QUALITY** - Would the project:					
a. Substantially deplete groundwater supplies or substantially interfere with groundwater recharge?			**X**		Private wells would be required to provide water to for facility operations. The project is proposing to use the existing private well. The proposed facility plan estimates 41,000 gallons of water will be used annually (112 gallons per day) for facility needs including monkey drinking water, cleaning, and landscaping. On average, each person in a household uses about 100 gallons of water a day. The project 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. The project will not substantially increase water demand over the existing use. Please refer to Chapter 5 “Public Services” of the EIR.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
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. Please refer to Chapter 4 “Hydrology, Drainage, & Water Quality” of the EIR.
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 site is located within a FEMA “Zone X” area and will not place housing in a FEMA designated floodplain or flood hazard area. Furthermore, the project will not impede or redirect flood flows by placing structures within a 100-year flood hazard area. Please refer to Chapter 4 “Hydrology, Drainage, & Water Quality” of the EIR.
d. Place structures that would impede or redirect flood flows within a 100-year floodplain?				X	The project site is not within a 100-year floodplain.
e. Develop in an area that is subject to 200 year urban levels of flood protection (ULOP)?				X	The project is not located in an area subject to 200-year urban levels of flood protection (ULOP).
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 will not 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.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
g. Create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems?			X		Sacramento County Department of Water Resources placed a condition of approval upon the project, that minimum pad/floor elevations would be required pursuant to the Sacramento County Floodplain Management Ordinance. Compliance with the Floodplain Management Ordinance, Sacramento County Water Agency Code, and the Sacramento County Improvement Standards will minimize any off-site impacts due to drainage from the project site
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. Please refer to Chapter 4 “Hydrology, Drainage, & Water Quality” for a full discussion.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
11. **GEOLOGY AND SOILS** - Would the project:					
a. Expose people or structures to substantial 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.
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.
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	The project is not located on an unstable geologic or soil unit.
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?				X	No known paleontological resources (e.g. fossil remains) or sites occur at the project location.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
12. **BIOLOGICAL RESOURCES** - Would the project:					
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			Refer to Chapter 11 “Biological Resources” for a full discussion of project impacts.
b. Have a substantial adverse effect on riparian habitat or other sensitive natural communities?			X		Refer to Chapter 11 “Biological Resources” for a full discussion of project impacts.
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		Refer to Chapter 11 “Biological Resources” for a full discussion of project impacts.
d. Have a substantial adverse effect on the movement of any native resident or migratory fish or wildlife species?		X			Refer to Chapter 11 “Biological Resources” for a full discussion of project impacts.
e. Adversely affect or result in the removal of native or landmark trees?				X	No native and/or landmark trees occur on the project site, nor is it anticipated that any native and/or landmark trees would be affected by off-site improvement required as a result of the project.
f. Conflict with any local policies or ordinances protecting biological resources?				X	The project is consistent with local policies/ordinances protecting biological resources. Refer to Chapter 11 “Biological Resources” for a full discussion of project impacts.
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.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
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**	~~X~~		No known archaeological resources occur on-site. The Northern California Information Center was contacted regarding the proposed project. A record search indicated that the project site is not considered sensitive for archaeological resources. An archaeological survey was conducted on the project site.
c. Disturb any human remains, including those interred outside of formal cemeteries?		**X**	~~X~~		The project site is located outside any area considered sensitive for the existence of undiscovered human remains. 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.
d. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?		**X**	~~X~~		No requests for tribal notification or consultation were received from California Native American Tribes pursuant to Public Resources Code 21080.3.1(b)(1). Tribal cultural resources were not identified in the project area.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
14. **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. Correspondence from the Global Federation of Animal Sanctuaries (GFAS) states that primate waste is not classified as biohazardous and can be disposed as regular waste by typical commercial waste management contractors. An exception to this would be if a monkey were diagnosed with a zoonotic disease or was involved in biomedical research involving zoonotic diseases, in which case, their veterinarian would determine if the waste should be handled as biohazardous medical waste. GFAS deemed the project's Zoonotic Disease Prevention Plan as "comprehensive and outlines appropriate means to safely dispose of primate waste" (Please refer to Appendix B).
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.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
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 a rural agricultural area of the unincorporated County and is located within a Local Responsibility Area and is not located within a Fire Hazard Severity Zone according to CalFire. Compliance with local Fire District standards and requirements ensures impacts are less than significant.
15. 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 California Emissions Estimator Model (CalEEMod) was used to estimate the greenhouse gas emissions associated with the project. Based on the unique characteristics of the proposed monkey sanctuary; PER staff consulted with SMAQMD staff regarding the appropriate land use classification and variables to use in the model. In addition, the defaults in CalEEMod were changed to reflect the emission anticipated for operation in 2019, and carbon intensity forecasts for the Sacramento Municipal Utility District (SMUD) based on SMUD's 2009 reporting year. The estimated GHG emissions for both facility construction and annual operation are significantly below SMAQMD's thresholds of 1,100 annual metric tons. Please refer to Chapter 10 "Greenhouse Gases & Climate Change" and/or Appendix E for the CalEEMod reports).

SUPPLEMENTAL INFORMATION

LAND USE CONSISTENCY	Current Land Use Designation	Consistent	Not Consistent	Comments
General Plan	Agricultural Residential (AG-RES)	X		
Community Plan	Agricultural-Residential (AR-5)	X		Southeast Area Community Plan
Land Use Zone	General Agriculture (A-5)	X		With approval of the use permit the project is consistent.

INITIAL STUDY PREPARERS

Environmental Coordinator: Tim Hawkins

Section Manager: Chris Pahule

Project Manager: Wendy Hartman

EIR Preparation: Josh Greetan

Initial Review: Josh Greetan

Office Manager: Brlinda-Wekesa Batts

Administrative Support: Justin Maulit

FINAL ENVIRONMENTAL IMPACT REPORT

SQUIRREL MONKEY HAVEN

Control Number: PLNP2017-00079
State Clearinghouse Number: 2018072056
Date: June 2019

COUNTY OF SACRAMENTO
OFFICE OF PLANNING AND ENVIRONMENTAL REVIEW
827 7TH STREET, ROOM 225
SACRAMENTO, CALIFORNIA 95814

Board Of Supervisors

1st District: Phil Serna

2nd District: Patrick Kennedy

3rd District: Susan Peters

4th District: Sue Frost

5th District: Don Nottoli

County Executive

Nav Gill, County Executive

Prepared By

County of Sacramento
Office of Planning and Environmental Review

FINAL ENVIRONMENTAL IMPACT REPORT

SQUIRREL MONKEY HAVEN

Control Number: PLNP2017-00079
State Clearinghouse Number: 2018072056

This Environmental Impact Report has been prepared pursuant to the California Environmental Quality Act of 1970 (Public Resources Code Division 13). An Environmental Impact Report is an informational document which, when this Office requires its preparation shall be considered by every public agency prior to its approval or disapproval of a project. The purpose of an Environmental Impact Report is to provide public agencies with detailed information about the effect that a proposed project is likely to have on the environment; to list ways in which any adverse effects of such a project might be minimized; and to suggest alternatives to such a project.

Prepared by the
COUNTY OF SACRAMENTO
OFFICE OF PLANNING AND ENVIRONMENTAL REVIEW
827 7TH STREET, ROOM 225
SACRAMENTO, CALIFORNIA 95814
www.PER.saccounty.net

Office of Planning and Environmental Review
Leighann Moffitt, Director

County Executive
Navdeep S. Gill

May 31, 2019

TO: All Interested Parties

SUBJECT: FINAL ENVIRONMENTAL IMPACT REPORT FOR SQUIRREL MONKEY HAVEN (CONTROL NUMBER: PLNP2017-00079)

The subject Final Environmental Impact Report (DEIR) is attached for your review and comment. The FEIR can also be reviewed at:
https://planningdocuments.saccounty.net/default.aspx?ControlNum=PLNP2017-00079

The Sacramento County Board of Supervisors will consider the FEIR and the proposed project in a public hearing to be held at 700 H Street, Room 1450 (Board Chambers). The hearing is scheduled for July 23, 2019. A notice of the date and time of the public hearing will be provided to all property owners within 500 feet of the Project site by the hearing body authorized to conduct the public hearing for the proposed project. Interested individuals not within this radius should contact the Clerk of the Board at 874-545 to be placed on the hearing notice mailing list. Interested individuals may also check the materials for upcoming hearings on the Sacramento County Board of Supervisors website http://www.bos.saccounty.net/Pages/default.aspx

For questions about the project, please contact Wendy Hartman of this office at (916) 875-0527 or hartmanw@sacccounty.net.

Sincerely,

[Original Signature on File]

Tim Hawkins
Environmental Coordinator

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PREFACE

This final environmental impact report (FEIR) has been prepared by Sacramento County (County), as lead agency, in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (CCR Section 15132). This FEIR contains responses to comments received on the draft environmental impact report (DEIR) on the Squirrel Monkey Haven Project. The Sacramento County Board of Supervisors will use the FEIR as one of the informational sources to determine whether to approve or deny the project.

A Notice of Preparation for the Project was published on July 23, 2018. Along with a Notice of Completion, the DEIR was released to the Governor's Office of Planning and Research to begin the 45-day public review period (Public Resources Code, Section 21161) on March 27, 2019. The comment period closed on May 10, 2019.

Where changes to the text of the EIR were made to reflect the revised proposal or are required as a result of the comments received, those changes are shown with **bold underline for text added** and ~~strikethrough for text deleted~~ within the pertinent chapter(s). Corrections to errors in pagination or format, spelling corrections, grammatical corrections, and other such editorial changes that are unrelated to the substantive content of the EIR are not highlighted. It should be noted that the revisions do not change the intent or content of the analysis or effectiveness of mitigation measures presented in the DEIR.

The FEIR and all appended materials are available electronically at on Sacramento County's website. Visit https://planningdocuments.saccounty.net/; within the "Application No." search field type PLNP2017-00079 and click "search."

EXECUTIVE SUMMARY AND MITIGATION MEASURES

This environmental impact report (EIR) evaluates the project's effects on environmental resources, both singularly and in a cumulative context, to examine alternatives to the project as proposed, and identify mitigation measures to reduce or avoid potentially significant effects. This document has been prepared in compliance with the California Environmental Quality Act (CEQA; Sections 21000-21189 of the Public Resources Code [PRC]) and the State CEQA Guidelines (Title 14, Sections 15000-15387 of the California Code of Regulations).

SUMMARY OF THE PROPOSED PROJECT

The subject of this Environmental Impact Report (EIR) is a project known as Squirrel Monkey Haven. The project site is located at 11859 North Valensin Road on the east side of Colony Road in the Southeast Area community of unincorporated Sacramento County.

The subject project is a Conditional Use Permit (UPZ) to allow for the construction of an indoor-outdoor kennel to house up to a maximum of 55 squirrel monkeys on a property with a zoning designation of A-5 (Agriculture – 5-acre minimum). The kennel includes a 2,700 square foot steel building with 18 attached outdoor habitats ranging in size from 240 to 288 square feet (~7,800 total square feet). The kennel will be surrounded by a security fence and landscape screening. The project is described in further detail in Chapter 1, "Project Description", of this EIR.

Lead and Responsible Agencies

The lead agency is the public agency with the principal responsibility for carrying out or disapproving a project. The lead agency is also responsible for scoping the analysis, preparing the EIR, and responding to comments received on the Draft EIR. Prior to making a decision to approve a project, the lead agency is required to certify that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the EIR, and that the EIR reflects its independent judgment. Sacramento County is the lead agency for the evaluation of the Squirrel Monkey Haven project.

Responsible agencies are public agencies that have discretionary approval power over the project. The following agencies are anticipated to have approval authority over some aspect of the project: California Department of Fish and Wildlife, Sacramento County Department of Animal Care and Regulation, and the United States Department of Agriculture.

FEATURES OF THE DRAFT EIR

Purpose of the Draft EIR

In accordance with CEQA, public agencies must prepare an EIR to evaluate the potential consequences of development and operation of projects that could significantly affect the environment. The EIR process is specifically designed to objectively evaluate and disclose potentially significant direct, indirect, and cumulative impacts of a project; to identify alternatives that reduce or eliminate a project's significant effects; and to identify feasible measures that mitigate significant environmental effects. In addition, CEQA requires that an EIR identify those adverse impacts that remain significant after mitigation. The purpose of an EIR is not to recommend approval or denial of a project, but to provide decision-makers, public agencies, and the general public with information about the project.

Scope of the Draft EIR

Pursuant to CEQA and the State CEQA Guidelines, a lead agency shall focus the EIR's discussion on significant environmental effects and may limit discussion of other effects to brief explanations about why they are not significant (PRC Section 21002.1, State CEQA Guidelines Section 15143). Furthermore, the EIR must also discuss the manner in which significant impacts can be feasibly mitigated or avoided.

ISSUES ADDRESSED IN THIS EIR

This EIR addresses the following technical issue areas:

- Land Use
- Hydrology and Water Quality
- Public Services
- Traffic & Circulation
- Air Quality
- Noise
- Cultural Resources
- Greenhouse Gases and Climate Change
- Biological Resources

This report has identified potential project-related impacts associated with biological resources and cultural resources, which could be reduced to a less than significant level through inclusion of recommended mitigation measures.

There were no project related impacts determined to be significant and unavoidable.

Impacts associated with land use, hydrology and water quality, public services, traffic and circulation, noise, air quality, and greenhouse gases and climate change **are considered less than significant**.

Issues not discussed within this EIR

Aesthetics

The proposed kennel facility is similar in size and style to other common agricultural buildings, and will be screened from view through landscaping appropriate for the area. Impacts related to aesthetics are considered ***less than significant.***

Agricultural Resources

The subject property is not considered prime farmland, farmland of statwide importance, unique farmland, farmland of local importance, or grazing land pursuant to the California Department of Conservation's farmland map. The site is not subject to a Williamson Act contract. Impacts to agricultural resources are considered ***less than significant.***

Geology and Soils

The project site is not within an Alquist-Priolo Earthquake Fault Zone, will not result in substantial soil erosion or loss of topsoil, and is not located .on a geologic soil unit that is unstable or will become unstable as a result of the project. The project will not result in the loss of availability of an important mineral resource. Impacts related to geology and soils is considered ***less than significant.***

Hazards and Hazardous Materials

The proposed project does not involve the use, transport, or disposal of hazardous materials other than common cleaning products. However, public comments have been received asserting that the urine and fecal waste from the monkeys is bio-hazardous waste. This issue is discussed further in the ***Hydrology, Drainage, and Water Quality*** and ***Public Services (Solid Waste)*** chapters of this EIR. Impacts associated with the use of hazardous materials is considered ***less than significant.***

Summary of Impacts and Mitigation Measures

The following environmental impact and mitigation summary table (*Table ES-1: Executive Summary of Impacts and Mitigation on page ES-4*) briefly describes the project impacts and the mitigation measures recommended to eliminate or reduce the impacts. The residual impact after mitigation is also identified. Detailed discussions of each of the identified impacts and mitigation measures, including pertinent support data, can be found in the specific topic sections in the remainder of this report.

Table ES-1: Executive Summary of Impacts and Mitigation

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
LAND USE			
CONSISTENCY WITH GENERAL PLAN, SOUTHEAST AREA COMMUNITY PLAN, AND COUNTY ZONING CODE The proposed project is consistent with the policies of the Sacramento County General Plan, Southeast Area Community Plan, and upon approval of a Use Permit would be consistent with Sacramento County Zoning Code.	LS	None Required	LS
HYDROLOGY AND WATER QUALITY			
100-YEAR FLOODPLAIN The project is located within a FEMA "Zone X" area and will not place structures in a FEMA designated floodplain or flood hazard area. County Department of Water Resources placed a condition of approval upon the project, that minimum pad/floor elevations would be required pursuant to the Sacramento County Floodplain Management Ordinance.	LS	None Required	LS

[1] PS = Potentially Significant S = Significant SU = Significant and Unavoidable LS = Less Than Significant

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Compliance with the Floodplain Management Ordinance, Sacramento County Water Agency Code, and the Sacramento County Improvement Standards will minimize any off-site impacts due to drainage from the project site.			
CREATE OR CONTRIBUTE RUNOFF WHICH WOULD EXCEED THE CAPACITY OF EXISITING OR PLANNED STORMWATER DRAINAGE SYSTEMS OR PROVIDE SUBSTANTIAL ADDITIONAL SOURCES OF POLLUTED RUNOFF Indoor housing would be sanitized weekly. This involves stripping the absorbent bedding (wood shavings) with feces and urine residues out of the cage, rinsing, applying a sanitizer, and then rinsing again. The indoor housing would have a central drain in the cement floor to collect rinse water during cleaning. The rinse water would drain into a dedicated septic system that would be designed by RC Berti Construction of Wilton with input, permitting, and inspection by Sacramento County Environmental Management Division.	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
WATER QUALITY The project involves minimal grading of less than 1 acre and less than 350 cubic yards of material and will not need to secure a grading permit. The proposed new septic system appears to be able to meet all setback requirements.	LS	None Required	LS
PUBLIC SERVICES			
EFFECTS TO WATER SUPPLY The applicant is proposing to use the existing private well on the property for the proposed facility's operations. The proposed facility plan estimates 41,000 gallons of water will be used annually (112 gallons per day) for facility needs including monkey drinking water, cleaning, and landscaping. On average, each person in a household uses about 100 gallons of water a day. Sacramento County Environmental Management Department (EMD) has reviewed the proposed project and concluded that the existing well is adequate to serve the existing home and the proposed monkey sanctuary. EMD also evaluated the location of the facility from adjacent well sites and indicated that the proposed facility met all required setbacks.	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
WASTEWATER TREATMENT The proposed septic system will be constructed to County standards and is subject to inspection by EMD. EMD reviewed the proposed location and determined that it meets setbacks from the existing well and from those on the neighboring properties.	LS	None Required	LS
EFFECTS TO SOLID WASTE FACILITIES The expected fecal output from the 51 monkeys is 0.8 pounds per day (24 pounds per month). This increase in solid waste would not fill a substantial proportion of the available permitted capacity at Keifer Landfill and would not result in the need to expand or construct new landfill facilities. According to correspondence from the Global Federation of Animal Sanctuaries and UC Davis, the State of California does not consider primate waste biohazardous and does not require it to be handled as biohazardous medical waste (refer to Appendix L and M). Waste can be handled and disposed as regular waste by typical commercial waste management contractors.	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
POLICE SERVICES The Sacramento County Sheriff's Department Subdivision and Project Review representative conducted a review and assessment of the project planning documents associated with the project. The Sheriff's Department provided conditions relating to address numbers, alarm systems, gate permits, and to provide immediate notification in the event of a missing or escaped monkey. Those conditions have been incorporated into the project	LS	None Required	LS
ANIMAL CONTROL SERVICES The proposed project will require the applicant to obtain a Wild Animal Permit from the Sacramento County Department of Animal Control and Regulation. Compliance with this permit will ensure the safe operation of the facility. Non-compliance with any permit conditions will result in revocation of the permit and closure of the facility	LS	None Required	LS
TRAFFIC & CIRCULATION			
ACCESS & PARKING There are no specific parking requirements for kennels in the County Zoning Code; however, Sacramento County Planning and	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Environmental Review staff reviewed the proposed project and have determined that because the amount of traffic to the site is expected to be minor, due to the nature of the proposed use, the existing driveway and paved areas adjacent to the existing home and barn are adequate to serve the proposed facility. The Building Department will require that an ADA compliant parking space be designated along with an accessible path of travel from the parking area to the kennel be provided. The Building Department requirements will be included as part of the project conditions if the project is approved. Land Division and Site Improvement Review (LDSIR) staff reviewed the project and had no comments. DOT Staff reviewed the project and provided advisory conditions if additional driveway or gates were proposed in the future.			
TRAFFIC GENERATION The project will generate 10 daily trips. In addition, one additional truck trip per week will be generated to accommodate the waste disposal for the facility.	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
AIR QUALITY			
RESULT IN SHORT-TERM, CONSTRUCTION-GENERATED EMISSIONS OF ROG, NO_X, PM_{10}, AND $PM_{2.5}$ THAT EXCEED SMAQMD-RECOMMENDED THRESHOLDS Construction-generated emissions of NO_X would not exceed the SMAQMD threshold of significance. Because construction-generated emissions of PM_{10} and $PM_{2.5}$ would not exceed the applicable adopted mass emissions thresholds adopted by SMAQMD, construction-generated emissions of PM_{10} and $PM_{2.5}$ would not contribute to a localized exceedance of the CAAQS and NAAQS for of PM_{10} and $PM_{2.5}$ or contribute to the nonattainment status of the SVAB with respect to the CAAQS for PM_{10} and the NAAQS for $PM_{2.5}$.	LS	None Required	LS
RESULT IN LONG-TERM, OPERATIONAL EMISSIONS OF ROG, NO_X, PM_{10} AND $PM_{2.5}$ THAT EXCEED SMAQMD-RECOMMENDED THRESHOLDS The operational emissions would not exceed SMAQMD-adopted daily or annual mass emission thresholds for ROG (precursor to ozone), NOX, and PM10 and PM2.5.	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Therefore, operational emissions of criteria air pollutants and precursors would not contribute considerably to the nonattainment status of the SVAB with respect to the CAAQS and NAAQS for ozone, the CAAQS for PM10, or the NAAQS for PM2.5. Moreover, operational emissions of PM10 and PM2.5 would not contribute to localized concentrations of PM10 and/or PM2.5 that would exceed or contribute to an exceedance of the CAAQS or NAAQS.			
RESULT IN LONG-TERM, OPERATIONAL MOBILE-SOURCE CO CONCENTRATIONS THAT EXCEED AIR QUALITY STANDARDS DUE TO INCREASED TRAFFIC Ten daily trips would not result in, or substantially contribute to, concentrations that exceed the 1-hour or 8-hour CAAQS and NAAQS for CO.	LS	None Required	LS
EXPOSE SENSITIVE RECEPTORS TO TACS Project-related construction would not expose nearby sensitive receptors to an incremental increase in cancer risk that exceeds 10 in 1 million or a hazard index greater than 1.0, the project would not introduce new stationary sources of TACs, and the project would not be developed in a location where future residents	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
would be exposed to relatively high concentrations of TACs from offsite emission sources.			
EXPOSE SENSITIVE RECEPTORS TO ODORS The proposed squirrel monkey sanctuary with 51 monkeys will produce significantly less waste than a single adult horse and about the same amount of urine as two adult humans and as much feces as three adult humans (at maximum capacity the change in waste output is negligible). The applicant has developed an odor control program to ensure that odors are minimized and will not result in a public nuisance.	LS	None Required	LS
NOISE			
RESULT IN SUBSTANTIAL CONSTRUCTION-GENERATED NOISE Noise-generating construction activity would occur between 7:00 a.m. and 7:00 p.m., Monday through Friday. The Sacramento County Code (Section 6.68.090) exempts construction-related noise, provided that construction activity does not occur between 8:00 p.m. and 6:00 a.m. on weekdays.	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Additionally, no pile driving or blasting would occur during construction. Therefore, construction would not result in the exposure of persons to, or generation of, noise levels in excess of applicable standards.			
RESULT IN CONSTRUCTION-GENERATED GROUND VIBRATION AT NEARBY SENSITIVE LAND USE The maximum ground vibration level generated by a large dozer is 0.089 in/sec PPV and 87 Vdb at 25 feet. The use of a large dozer would not exceed the Caltrans recommended level of 0.2 in/sec PPV with respect to structural damage, as the noted vibration level at 25 feet is substantially below 0.2 in/sec PPV. Further, multiple dozers are generally not used in close proximity for safety reasons. No structures are located within 25 feet of the project site boundary; therefore, the exposure at the closest buildings from a large dozer would be less than the Caltrans recommended level of 0.2 in/sec PPV. With respect to human disturbance, the use of a large dozer would exceed the Federal Transportation Agency's maximum acceptable level of 80 VdB within 40 feet of dozing activity. The existing structure nearest to where	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
construction would occur is beyond 40 feet from the project site boundary. Thus, construction activities performed by dozers would not occur within 40 feet of existing structures and therefore, vibration levels would not exceed the Federal Transportation Agency's maximum acceptable level for human annoyance of 80 VdB; therefore, construction that would occur on project site would not result in the exposure of any sensitive receptors or structure to excessive vibration levels.			
SUBSTANTIAL INCREASE (TEMPORARY, PERIODIC, OR PERMANENT) IN AMBIENT NOISE LEVELS The worst-case squirrel monkey sound exposure levels are predicted to be well below the recommended interior Sound Exposure Level (SEL) standard of 55 dB. No further consideration of noise mitigation measures would be warranted for the project relative to the recommended interior SEL standard of 55 dB. The low density rural character of the community generally provides a suitable environmental setting in which kennels would be compatible. According to the project	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
applicant, the kennel will be closed-up at night between 8 p.m. and 7 a.m. weekdays and 8 p.m. and 9 a.m. weekends and holidays; therefore limiting the potential for nighttime noise disturbance.			
CULTURAL RESOURCES			
ADVERSELY AFFECT IMPORTANT CULTURAL OR ARCHAEOLOGICAL RESOURCES The cultural resources inventory and evaluation did not identify any archaeological or tribal resources on the project site or within a quarter-mile of the project area (Dougherty 2017). The NCIC records search did not yield any resources, studies, or reports within a quarter-mile of the project area. The NAHC did not identify any sacred sites that could be affected by the project. Although no NRHP- or CRHR-listed or eligible resources, unique archaeological resources, tribal cultural resources, or traditional cultural properties have been documented in the project site, the project is located in a region where significant prehistoric and historic-era	PS	**Mitigation Measure CR-1:** If cultural resources are discovered during project-related construction activities, all ground disturbances within a minimum of 50 feet of the find shall be halted and the Planning and Environmental Review Division of the Community Development Department shall be immediately notified at (916) 874-7499. Work shall remain suspended until a County-identified, qualified professional archaeologist can evaluate the discovery. The archaeologist shall examine the resources, assess their significance, and recommend appropriate procedures to the lead agency to either further investigate or mitigate adverse impacts. If the find is determined to be a significant historical resource and the archaeological resource cannot be avoided, then applicable mitigation measures for	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
cultural resources have been recorded and there remains a potential that undocumented cultural resources could be unearthed or otherwise discovered during ground-disturbing and construction activities.		significant resources shall be completed (e.g., preservation in place, data recovery program pursuant to PRC Section 21083.2[i]). The project applicant shall be required to implement any mitigation deemed necessary for the protection of such cultural resources. During evaluation or mitigated treatment, ground disturbance and construction work could continue on other parts of the project site.	
DISTURB HUMAN REMAINS, INCLUDING THOSE INTERRED OUTSIDE OF FORMAL CEMETERIES There is no known evidence of potential for human burials on the project site. In the event human remains are discovered, the contractor would be required to comply with existing regulations. Pursuant to Section 7050.5 of the California Health and Safety Code, in case of the discovery of human remains, all work would stop and the County coroner would be immediately notified. If the remains are determined to be Native American, guidelines of the NAHC would be adhered to in the treatment and disposition of the remains, consistent with PRC Section 5097.98 and Sacramento County General Plan Policy CO-	PS	See Mitigation Measure CR-1 above	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
155.			
ADVERSELY AFFECT A UNIQUE PALEONTOLOGICAL RESOURCE OR SITE, OR A UNIQUE GEOLOGIC FEATURE According to the State CEQA Guidelines, a project is considered to have a significant impact on paleontological resources if it would directly or indirectly result in the destruction of a unique paleontological resource. No known paleontological resources or sites occur at the project location; therefore, Sacramento County General Plan Policy CO-161 (which requires appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources) would not apply.	~~PS~~ **LS**		LS
GREENHOUSE GASES & CLIMATE CHANGE			
GENERATION OF GREENHOUSE GAS EMISSIONS Based on the unique characteristics of the proposed monkey sanctuary; PER staff consulted with SMAQMD staff regarding the appropriate land use classification and variables to use in the model. In addition, the	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
defaults in CalEEMod were changed to reflect the emission anticipated for operation in 2019, and carbon intensity forecasts for the Sacramento Municipal Utility District (SMUD) based on SMUD's 2009 reporting year. The estimated GHG emissions for both facility construction and annual operation are significantly below SMAQMD's thresholds of 1,100 annual metric tons.			
BIOLOGICAL RESOURCES			
DISTURBANCE OF MIGRATORY BIRDS NESTS Implementation of the project could adversely affect common migratory birds through disturbance during the breeding season. Loss of active nests of common species would be inconsistent with the MBTA; however, the list of migratory birds includes many common species not otherwise protected under federal, state, or local laws. Loss of active nests of common species during project construction would not substantially reduce the abundance of any species, nor cause the abundance of any species to decline below self-sustaining levels. As such, potential adverse effects on common migratory birds would not alone	PS	**Mitigation Measure BR-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. 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.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
constitute a significant impact as defined by the significance criteria established for this EIR.			
DISTURBANCE OF NESTING BIRDS OF PREY Although there are no CNDDB records of these species on the project site or within 5 miles of the project site, suitable habitat for nesting birds of prey is present. If construction will occur during the nesting season of March 1 to September 15, preconstruction surveys will be required to ensure that construction activities do not agitate nesting birds of prey, potentially resulting in nest abandonment or other harm to nesting success (Mitigation Measure BR-1). If nests are found, the developer is required to contact CDFW 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.	PS	**Mitigation Measure BR-2:** 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 and ground nesting 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 CDFW 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	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		nest.	
DISTURBANCE OF SWAINSON'S HAWK NESTS Swainson's hawk is listed as threatened under CESA and has the potential to nest on the project site. Trees located around the project site provide potential habitat for Swainson's hawk. Reconnaissance surveys of the site did not detect the species or its nests and there are no records of these species nesting on the site; however, CNDDB records indicate that 19 sightings of Swainson's hawk have been sighted within 5 miles of the project site. Preconstruction surveys will be required to ensure that construction activities do not agitate nesting hawks, potentially resulting in nest abandonment or other harm to nesting success (Mitigation Measure BR-2).	PS	**Mitigation Measure BR-3:** If construction, grading, or project-related improvements are to commence between March 1 and September 15, a focused survey for Swainson's hawk nests on the site and within 1/2 mile of the site shall be conducted by a qualified biologist no later than 30 days prior to the start of construction work (including clearing and grubbing). 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.	LS
DISTURBANCE OF TRICOLORED BLACKBIRD NESTS Tricolored blackbird are listed as a CDFW Species of Special Concern. The ponded area of the property contains suitable habitat for the species and noise generated by construction activity could potentially agitate nesting tricolored blackbirds, potentially resulting in	PS	**Mitigation Measure BR-4:** If construction activity (which includes clearing, grubbing, or grading) is to commence within 300 feet of suitable nesting habitat between March 1 and July 31, a survey for nesting tricolored blackbirds shall be conducted by a qualified biologist. The survey shall cover all potential nesting habitat on-site and off-site up to a distance of 300 feet from the project	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
nest abandonment. Focused surveys for the species did not detect tricolored blackbirds or any special-status bird species. The biological report, dated September 17, 2018, found that while the pond contained the appropriate wetland vegetation, its small size (0.07 acres) would make it highly unlikely to support a tricolored blackbird breeding colony. CNDDB records indicate that there are 27, recorded occurrences within 5 miles of the project site. Ten of the records were concentrated along Twin Cities Road, approximately 1.5 to 3 miles to the southeast at habitats locations containing much larger continuous freshwater emergent wetlands than what is present at the site, making these larger bodies of water more preferable for the species. Further, a colony of red-winged blackbirds (*Agelaius phoeniceus)* was observed within the site's pond habitat on the May 1 reconnaissance survey. The birds were observed displaying mating behaviors including singing, wing displays, and general territoriality. The presence of the more aggressive and territorial red-winged blackbirds in a pond of this size suggests that colonization and nesting by tricolored blackbirds is highly unlikely; however, mitigation is included to reduce potential		boundary. The survey shall occur within 30 days of the date that construction will encroach within 300 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 tricolored blackbird were found during the pre-construction survey, no further mitigation would be required. If an active tricolored blackbird colony is found on-site or within 300 feet of the project site the project proponent shall do the following: 1. Consult with CDFW to determine if project activity will impact the tricolored blackbird colony(s). Implement all protective measures recommended by CDFW. Provide the Environmental Coordinator with written evidence of the consultation or a contact name and number from CDFW.	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
impacts to nesting tricolored blackbirds (Mitigation Measure BR-3).			
LOSS OF SPECIAL-STATUS VERNAL POOL INVERTEBRATES Vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardi*) are both federally protected species. Biological surveys for the species were conducted after members of the public voiced concern that the pond could potentially support vernal pool invertebrates and that the project could impact them. The biological report, dated May 7, 2018, found the pond does not provide suitable habitat for either species. The amount of perennial freshwater emergent vegetation present in the pond implies that the pond is likely perennially-inundated, thus providing poor habitat for vernal pool invertebrates. Additionally, the presence of aquatic predators (American bullfrogs and the stocking of the pond with mosquito fish) make it highly unlikely the pond could support vernal pool invertebrates.	LS	None Required	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
LOSS OF CALIFORNIA TIGER SALAMANDER AND ITS HABITAT California tiger salamander (*Ambystoma californiense*) are listed as a federally endangered species. The nearest documented occurrence is 4.4 miles northeast of the project site. Biological surveys for the species were conducted after members of the public and a biologist hired by a neighbor to the project site voiced concern that the pond and surrounding upland area was suitable habitat for the species. The biological report by Bargus Environmental, dated May 7, 2018, concluded that the study area does not provide suitable habitat for the species. Reconnaissance surveys noted that American bullfrogs were prevalent throughout the pond, which makes it highly unlikely that a viable California tiger salamander population could successfully breed in the pond, since the bullfrog is a predator to the larvae of the species. Moreover, the lack of rodent burrows in the surrounding upland habitat means that summer and fall sheltering habitat is minimal.	LS	None Required	LS

MITIGATION MONITORING AND REPORTING PROGRAM

It shall be the responsibility of the project applicant/owner to comply with the Mitigation Monitoring and Reporting Program (MMRP) for this project and to reimburse the County for all expenses incurred in the implementation of the MMRP, including any necessary enforcement actions. The MMRP fee for this project is $2,200. This fee includes administrative costs of $900.00, which must be paid to the Office of Planning and Environmental Review prior to recordation of the MMRP and prior to recordation of any final parcel or subdivision map. The remaining balance will be due prior to review of any plans by the Environmental Coordinator or issuance of any building, grading, work authorization, occupancy or other project-related permits.

TERMINOLOGY USED IN THIS EIR

This Draft EIR uses the following terminology to describe environmental effects of the project.

Significance Criteria. A set of criteria used by the lead agency to determine at what level, or “threshold,” an impact would be considered significant. Significance criteria used in this EIR include those that are set forth in the CEQA Guidelines, or can be discerned from the CEQA Guidelines; criteria based on factual or scientific information; criteria based on regulatory standards of local, state, and federal agencies; and criteria based on goals and policies identified in the Sacramento County General Plan.

Less-than-Significant Impact. A project impact is considered less than significant when it does not reach the standard of significance and would therefore cause no substantial change in the environment. No mitigation is required for less-than-significant impacts.

Potentially Significant Impact. A potentially significant impact is a substantial, or potentially substantial, adverse change in the environment. Physical conditions which exist within the area will be directly or indirectly affected by the proposed project. Impacts may also be short-term or long-term. A project impact is considered significant if it reaches the threshold of significance identified in the EIR. Mitigation measures may reduce a potentially significant impact to less than significant.

Significant Unavoidable Impact. A project impact is considered significant and unavoidable if it is significant and cannot be avoided or mitigated to a less-than-significant level once the project is implemented.

Cumulative Significant Impact. A cumulative impact can result when a change in the environment results from the incremental impact of a project when added to other related past, present or reasonably foreseeable future projects. Significant cumulative impacts may result from individually minor but collectively significant projects.

Mitigation. Mitigation measures are revisions to the project that would minimize, avoid, or reduce a significant effect on the environment. CEQA Guidelines §15370 identifies 5 types of mitigation:

a) Avoiding the impact altogether by not taking a certain action or parts of an action.

b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.

d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

e) Compensating for the impact by replacing or providing substitute resources or environments.

1 PROJECT DESCRIPTION

INTRODUCTION

The subject project is a Conditional Use Permit (UPZ) to allow for the construction of an indoor-outdoor kennel to house up to a maximum of 55 squirrel monkeys on a property with a zoning designation of A-5 (Agriculture – 5-acre minimum). The kennel includes a 2,700 square foot steel building with 18 attached outdoor habitats ranging in size from 240 to 288 square feet (~7,800 total square feet). The kennel will be surrounded by a security fence and landscape screening.

PROJECT SETTING

The project site is located at 11859 North Valensin Road on the east side of Colony Road in the Southeast Area community of unincorporated Sacramento County (Plate PD-1 & Plate PD-2).

Assessor Parcel Number: 138-0090-069

ENVIRONMENTAL SETTING

The five-acre project site is developed with a single-family residence, a 40' W x 30' L x 14' H accessory structure, and a 3-stall horse shelter with paddock that will remain on the western end of the property and would be separate from the monkey housing. The existing shop would be used as a central facility to carry out all aspects of monkey care and the horse shelter would be used to store facility maintenance equipment. The proposed kennel/monkey sanctuary will be located in the center of the parcel. This area is currently a fenced, agricultural pasture of approximately two acres. The pasture has an even grade and is kept mowed. Vegetation consists of annual grass, star thistle, and similar annual plants that prefer disturbed soil areas.

The project area appears to contain only Galt clay soils. Galt clay soils are dense, dark clay soils developed in basin areas originally subject to flooding. The nearest perennial water courses are Badger Creek, located approximately 0.80 miles north and Laguna Creek located about 0.75 miles to the southeast.

LAND USE DESIGNATION AND ZONING

According to the Sacramento County General Plan the site has an Agricultural Residential land use designation. The Southeast Area Community Plan designates the property as Agricultural Residential (AR-5). The property is zoned A-5.

Plate PD-1: Vicinity Map

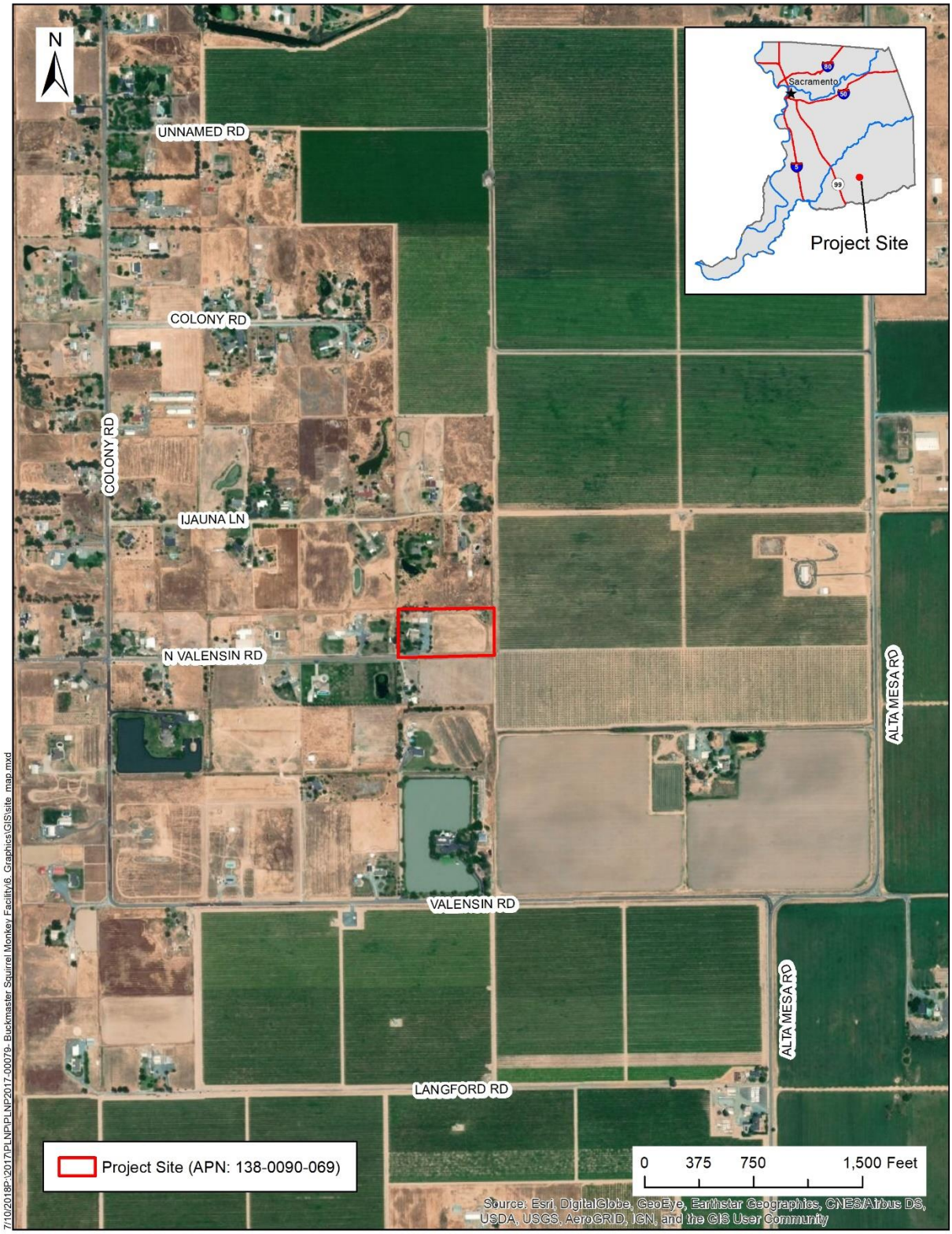


Plate PD-2: Project Site – Zoomed Extent

All adjacent parcels, with the exception of the east bounding parcel, have similar land use and zoning designations as the subject parcel; these properties are developed with single-family residences and accessory structures. The parcel to the east is zoned Agricultural – 20 Acres (AG-20), has a General Agricultural 20 acres (GA-20) land use designation, and is in agricultural production.

The project site is zoned A-5 (Agriculture – 5-acre minimum parcel size) which is an Interim Agricultural Holding Zone. The Interim Agricultural Holding Zones were applied to rural areas of the County that historically were used for agricultural purposes but had the potential to undergo a transition to urban development in the future. Pursuant to the Zoning Ordinance Title IV (Interim Zones), each of the Interim Agricultural Holding Zones has a correlation to a standard base zoning district in the current Zoning Ordinance which is used to establish allowable uses and development standards. The A-5 interim zone district is treated in the same manner as properties that are designated as AR-5 (Agricultural Residential) on the County Zoning Map and Zoning Ordinance. According to Section 3.2.5 of Sacramento County Zoning Code; Table 3.1 of the Zoning Ordinance, kennels; catteries; and, small animal boarding and training facilities in the AR-5 land use zones are permitted subject to the issuance of a conditional use permit by the Zoning Administrator.

Section 3.2.4.A states:

> If a use is not listed in Table 3.1, 3.2, or 3.3, included in a use definition, or shown as a permitted or conditionally permitted use in any zoning district, the use is prohibited, unless the Planning Director determines that either:
>
> 1. The use is substantially similar in characteristics, intensity, and compatibility to a use or uses within the zoning district, applicable to the property; or
>
> 2. The use would be appropriate in the zoning district, applicable to the property as a permitted or conditional use.

Section 3.2.4.B states:

> In those cases where the Planning Director makes a determination that the use meets either Sections 3.2.1 or 3.2.2, the use shall conform to all the regulations, conditions of approval, and use standards applicable to the similar described use(s). If the use would be appropriate in the zoning district as a conditional use, a Conditional Use Permit shall be heard by the designated body for the similar use.

The Planning Director determined that the proposed monkey sanctuary was substantially similar to a kennel pursuant to the findings in Section 3.2.4.A of the Zoning Code, which is allowed in an A-5 zoning district subject to the issuance of a Conditional Use Permit by the Zoning Administrator. Staff was then directed to prepare an environmental document.

The Initial Study did not identify any potentially significant impacts and a Negative Declaration was released for public review on February 13, 2018. The project was approved by the Zoning Administrator on March 21, 2018 and on April 2, 2018, neighbors in proximity to the project site, filed an appeal challenging the Negative Declaration on the grounds a “fair argument” could be made that the project may have significant impacts. The appellant was specifically concerned with land use/zoning code consistencies and biological resources impacts. On June 19, 2018, the County Board of Supervisors approved staff’s recommendation that an EIR be prepared to address these topical areas.

Project Proponents

Owner/Applicant: Paul & Christine Buckmaster

Project Objectives

CEQA requires that an EIR include a statement of objectives for the project, and that the objectives include the underlying purpose of the project. These objectives help the lead agency determine the alternatives to evaluate in the EIR (see CEQA Guidelines Section 15124[a]). The following project objectives have been identified by the applicant:

- To operate a squirrel monkey sanctuary for an existing colony of squirrel monkeys retired from behavioral research.
- To allow new squirrel monkeys that are retired from research to join the colony, up to a maximum of 55 total squirrel monkeys, in order to provide an alternative to euthanization.
- To construct a “Kennel, Cattery, Small Animal Boarding and Training” facility that is adequately sized to provide shelter and care for a colony of 55 squirrel monkey and meets specifications sufficient to obtain accreditation from the Global Federation of Animal Sanctuaries.
- To operate the facility onsite at the project applicants’ residence, who will be the lead caretakers for the squirrel monkeys, to reduce vehicle miles traveled and to ensure the primary caretakers are in close proximity to the facility.

Proposed Project

The proposed project would require a Conditional Use Permit (UPZ) to allow for the construction of the kennel. The proposed facility would permanently house up to 55 squirrel monkeys (initial intake would be 51 monkeys recently retired from research).

The proposed project (reference Plate PD-3 through PD-8) includes the following features:

- One steel agricultural building built to Sacramento County code that measures 30' W x 90' L x 12'H would provide indoor shelter for the monkeys. The building would have a cement floor with a central drain attached to a dedicated septic system. Caging that is professionally designed and constructed to fulfill regulations for the welfare of this species would be installed on the cement floor (See Appendix A: site plan, floor plan, and photo examples of similar facilities).

- In addition to the one building for shelter, there would be outdoor naturalistic habitats planted with trees and shrubs. There would be 18 habitats, 9 measuring 12' W x 20' L x 10' H and six measuring 12' W x 24' L x 10' H. These dimensions fulfill mandated minimum space requirements for this species. Access from the indoor shelter to the habitats is via industry standard aerial runway-tunnels.

- Site preparation is minimal. The housing would be built on a level pasture and no existing trees or shrubs would be removed. Extensive grading will not be required; pasture grasses would be removed by scraping, four to six inches of gravel applied, and a cement pad for the building foundation. The habitat enclosures will sit on level ground. Steel-posts at the corners would be anchored into the ground with cement. A heavy wire mesh guard at the bottom would surround each enclosure and be covered with soil. The enclosures would be mulched and planted.

- An eight-foot tall security fence will be installed around the perimeter of the kennel building and outdoor habitats. Trees and shrubs will be densely planted around the outer perimeter of the fence to provide additional screening of the kennel enclosure.

- **The project site has existing SMUD overhead 12kV facilities in the southwest corner of the property.**

- New septic system – The indoor housing would have a central drain in the cement floor to collect rinse water during cleaning. The rinse water would drain into a dedicated septic system that would be designed by RC Berti Construction of Wilton with input, permitting, and inspection by Sacramento County Environmental Management Division.

- ADA accessible parking space and access path from existing parking area to the kennel facility

In addition to the residents of the home, the facility will employ up to two additional employees. The proposed facility has a nonprofit status as a 501(c)(3) organization and will seek accreditation/membership from the Global Federation of Animal Sanctuaries (GFAS) and the North American Primate Sanctuary Alliance. Accredited sanctuaries that are not permitted as zoos are prohibited from being open to the general public.

Therefore, visitors to the site will be minimal and only by appointment (inspections, animal care providers, and facility sponsors/donors).

Summary of Operating Procedures of Squirrel Monkey Haven

The project proponents have prepared the following summary of operating procedures:

Governance: Squirrel Monkey Haven (SMH) is a tax-exempt 501 (c) (3) organization. Christine Buckmaster is Founder-CEO; Paul Buckmaster DVM is Senior Veterinarian.

Operations: SMH must fulfill regulations set forth by California Department of Fish and Wildlife and the United States Department of Agriculture Animal Welfare Act as well as accreditation standards of the Global Federation of Animal Sanctuaries. These agencies would inspect SMH regularly (CFDW and USDA annually; GFAS tri-annually).

Health: SMH monkeys were born in California and are healthy. None are a health risk to people or other animals. Veterinarians provide health care to all of SMH monkeys. Monkeys are monitored daily for wellness. Law requires Veterinarians to report any animal (dog, cat, horse, rabbit, chicken, monkey, etc.) diseases that could be a risk to human health. None of the SMH monkeys have ever had a disease that was a risk to humans or other animals. A certificate of health from a licensed Veterinarian is required before monkeys can be released from research or transferred between zoos or sanctuaries.

Design: The property is at the end of N. Valensin. The site for the monkey housing is set back from the property boundary and has some existing trees and bushes for visual barrier. Indoor shelter for the monkeys would be a neutral colored steel Ag. building typical for the area. Habitats are wire mesh mandated by regulations. Indoor cages connect to outdoor habitats by aerial runway-tunnels. Habitat interiors have monkey-safe plantings. Habitat perimeters would have more water conserving landscaping for aesthetics. Plants would be maintained by water-conserving drip irrigation

Emergency Preparedness: Escape would be a greater hazard to monkeys' welfare than it would be for humans or other-animals. Significant preventative efforts and protocols are in place to prevent them including double-door entries with locks (see Exhibit D); however, as required by regulatory agencies, in the unlikely event of an escape there is a protocol. See *Emergency Prevention and Action Plan*.

Odor & Waste Removal: Regulations require daily cleaning and weekly sanitation of monkey housing to prevent odor and maintain a healthy environment for monkeys and staff.

- Absorbent bedding (e.g. wood shavings) would be used indoors on the cement floor of each cage to trap and deodorize feces and urine. Soiled bedding would be removed daily and all bedding would be removed weekly and refreshed after cages are sanitized.
- Indoor caging, floors, and walls would be cleaned and deodorized weekly with a sanitizing solution (e.g. Rescue).
- Outdoor habitats would be mulched and soiled areas cleaned and refreshed twice weekly.
- Aisles in the building would be swept and mopped daily with 1:32 bleach solution to keep area clean and prevent odors.
- Soiled bedding/mulch and animal waste would be put in heavy-duty plastic bags and disposed of in a commercial waste bin that has a heavy securable cover to prevent animal entry and odor escape. The bin will be stored next to the monkey housing area and will be picked up weekly by Cal-Waste Recover of Galt. Cal-waste has confirmed that they will schedule weekly pick-up to coordinate with building cleaning days such that waste will be picked-up within 24 hours of cleaning days. No special handling of the waste is required.
- All effluent from the facility would be directed to the dedicated septic system for the facility.

Noise: We do not expect the monkeys to be a noise nuisance in this active agricultural zone but preventative strategies have been investigated and would include 1) On-site analysis by an acoustical engineer to prescribe noise control mitigations 2) The indoor shelter for the monkeys would be insulated to provide acoustical attenuation and 3) Monkeys access to outdoor enclosures would be restricted to 7 AM -8PM weekdays and 9AM-8PM on weekends.

Water Use: The property is serviced by a private well that is not shared with any other property. An estimated 41,000 gallons of water would be used annually for all water needs including; monkey drinking water; cleaning; and water conserving landscaping maintenance.

Well Contamination: The well servicing the property is more than 200 ft. from the monkey housing. Neighboring wells are far more than 300 ft. from the monkey housing. Per Sacramento County Code, a septic system could be placed 100 ft. from a drinking water well. Given monkey housing is a far greater distance from wells, and waste is carefully handled, it is unlikely to contaminate wells.

Traffic: The residence would be home to the Buckmaster family (4). One or two staff members would drive to SMH daily (full-time 5-daysjweek). Guest visits to SMH would be by appointment and restricted to 2 passenger cars per day, on 5 days of the week (five weekdays, or four weekdays and one weekend day). Parking is available on property. No street parking would be necessary. North Valensin is a private road with a binding agreement by neighbors to share the cost of maintaining it.

EMERGENCY PREVENTION AND ACTION PLAN

The applicants have prepared and Emergency Prevention and Action Plan, for the facility. This plan details procedures for preventing and dealing with:

- Monkey Escape;
- Human Medical Emergencies;
- Environmental Emergencies (e.g. Fire and Security Breach);

MONKEY ESCAPE

- **PREVENTION**

  - **ENCLOSURE SECURITY**

    o All monkey housing (indoor and outdoor cages) have double entries that are kept locked at all times.
    o Only SENIOR STAFF hold keys to monkey housing areas and access housing areas for shifting, cleaning, maintenance, or to aid monkey(s).
    o Monkeys are shifted from, and locked out of, housing areas before accessing them.
    o Slides, doors, and gates securing monkeys in housing areas are kept closed and locked at all times.
    NOTE: ALL DOORS, SLIDES, AND GATES ARE KEPT CLOSED AND SECURED WHILE STAFF IS WORKING IN A HOUSING AREA THAT MONKEYS ARE LOCKED OUT OF.
    o Indoor /outdoor enclosures that are not housing monkeys are kept locked at all times.
    o Personnel maintain verbal contact when servicing monkey housing.
    o When possible, enclosures are serviced from the outside to avoid unnecessary enclosure entry.
    o Routine standard operating procedures are used when servicing enclosures to prevent human error.

- **ENCLOSURE STRUCTURAL INTEGRITY**

    o Indoor and outdoor enclosures, runways, service doors, gates, gate latches, hinges, and sliding doors are manually and visually double-checked for function by SENIOR STAFF at opening in the AM and closing in the PM daily, during each visit to the housing area, and after each use to ensure proper functioning.

- **ESCAPE ACTION PLAN**

  - **Perform these ESSENTIAL ACTIONS during an escape:**

- o Maintain visual contact with escapee(s) at all times.
- o Alert all other personnel for assistance.
- o Assess how escape occurred and secure breach to prevent additional escapes while maintaining an open securable area that the escapee(s) can to return to and be locked into.
- o Begin recapture protocol.
- o During an escape event the preferred outcome is that the monkey(s) voluntarily return to the enclosure without human contact.
- o **DARTING WITH SEDATIVE IS NOT STANDARD SOP WITH THIS SMALL SPECIES.**

➢ **RECAPTURE PROTOCOL**

Non-contact method for voluntary return (preferred):
*Squirrel monkeys do not like to be away from their social group and may return quickly

- o Neutral technique (when movement causes retreat from group)
  - • Watch and wait silently for voluntary return.
- o Positive reinforcement technique (PR) (when movement creates interest)
  - • Coax back to enclosure with high value treats.
- o Negative reinforcement technique (NR) (when PR is working but need extra encouragement)
  - • Guide toward and pressure into cage using gloves as visual NR.

NOTE: A combination of the above can be used. Judgment during an episode must guide specific actions. Generally follow this order: neutral --> positive reinforcement --> negative reinforcement.

Contact method (specific procedure described during personnel training sessions):

- o Manual
- o Net

NOTE: Detailed SOPs for various escape-recapture scenarios are provided during training sessions with personnel and during emergency drills.

➢ **PERFORM THESE ACTIONS AFTER THE MONKEY(S) ARE RECAPTURED**

- o Observe for injury.

o Report incident to Attending Veterinarian and make arrangements for treatment as needed.

- **ESCAPE INCIDENT RECORDING, REPORTING, AND INVESTGATION**
  - o Record details of the escape and recapture in the INCIDENT LOG BOOK.
  - o Circumstances enabling an escape are investigated and remedies are put in place immediately.
  - o Report of escape is made to appropriate authorities as required.
  - o Organization-wide meeting is held to discuss the incident to refresh prevention methods.

HUMAN MEDICAL EMERGENCY

- CALL **911** IMMEDIATELY
- Alert other personnel for assistance.
- Perform first aid as appropriate until First Responders arrive.

Note: SMH personnel receive first aid training with annual refresher.

ENVIRONMENTAL EMERGENCY

FIRE

- **ACTION PLAN**
  - CALL **911** IMMEDIATELY
  - Alert other personnel for assistance.
  - Without endangering personal safety, apply fire extinguisher and/or water to reduce fire spread until First Responders arrive.
  - SENIOR STAFF REMAIN PRESENT TO AID FIRST RESPONDERS BY PROVIDING INFORMATION ABOUT THE FACILITY AND TO KEEP MONKEYS SECURED.

- **PREVENTION**
  - Monkey housing and operations buildings are steel.
  - SMH personnel receive annual fire prevention training from the local Fire Authorities.
  - Fire extinguishers (inspected annually) are posted at all buildings.
  - Fire prevention includes management of natural landscape hazards, e.g., grasses.

FACILITY SECURITY

- **ACTION PLAN**

- Call 911 IMMEDIATELY
- Alert other personnel
- Tell intruders to leave the premises- do not approach intruders
- Maintain visual
- Retreat to safety of locked area personal threat is present

- **PREVENTION**

  - Personnel are on site 24/7/365 to monitor facility security.
  - Alarm and video security systems (ADT) are in place.
  - Personnel accompany any guests, contractors, vendors, etc., when

EMERGENCY SUCCESSION PLAN

SMH has prepared an Emergency Succession Plan if the organization is faced with the unlikely event of an untimely vacancy. The plan includes the following:

Succession Plan in Event of a Temporary, Unplanned Absence: Short-Term
The Board of Directors is authorized to implement the terms of this emergency plan in the event of the unplanned absence of the Executive Director. A temporary absence is one of less than three months in which it is expected that the Executive Director will return to his/her position once the events precipitating the absence are resolved.

At the time that this plan was approved, the position of Acting Executive Director would be:

Paul Buckmaster DVM
SMH Attending Veterinarian

Should the standing appointee to the position of Acting Executive Director be unable to serve, the first and second back-up appointees for the position of Acting Executive Director will be:

(1) C. Dell
Business Owner

(2) J. HAHDY
SMH Sanctuary Manager

The Board may consider the option of splitting executive duties among the designated appointees.

Authority and Compensation of the Acting Executive Director
The person appointed as Acting Executive Director shall have the full authority for decision-making and independent action as the regular Executive Director. The Acting Executive Director may be offered a temporary salary increase to the

entry-level salary of the executive director position. Note: P. Buckmaster and C. Dell would not be compensated; J. Hardy would be compensated

Board Oversight
The board shall be responsible for monitoring the work of the Acting Executive Director and will be sensitive to the special support needs of the Acting Executive Director in this temporary leadership role.

Communications plan
As soon as possible after the Acting Executive Director has begun covering the unplanned absence, Board members and the Acting Executive Director shall communicate the temporary leadership structure to the following key external accreditation of SQUIRREL MONKEY HAVEN.

1) Young, Craig & Co., LLP
2) GFAS
3) NAPSA

Completion of Short-Term Emergency Succession Period
The decision about when the absent Executive Director returns to lead SQUIRREL MONKEY HAVEN should be determined by the Executive Director and the Board. They will decide upon a mutually agreed schedule and start date. A reduced schedule for a set period of time can be allowed, by approval of the Board, with the intention of working their way back up to a full-time commitment.

Succession Plan in Event of a Temporary, Unplanned Absence: Long-Term
A long-term absence is one that is expected to last more than three months. The procedures and conditions to be followed should be the same as for a short-term absence with one addition:
The Board of Directors will give immediate consideration, in consultation with the Acting Executive Director, to **temporarily** filling the management position left vacant by the Acting Executive Director. This is in recognition of the fact that for a term of more than three months, it may not be reasonable to expect the Acting Executive Director to carry the duties of both positions. The position description of a temporary manager would focus on covering the priority areas in which the Acting Executive Director needs assistance.

Completion of Long-Term Emergency Succession Period
The decision about when the absent Executive Director returns to lead SQUIRREL MONKEY HAVEN should be determined by the Executive Director and the Board. They will decide upon a mutually agreed upon schedule and start date. A reduced schedule for a set period of time can be allowed, by approval of the *Board,* with the intention of working the way up to a full-time commitment

Succession Plan in Event of a Permanent Change in Executive Director

A permanent change is one in which it is firmly determined that the Executive Director will not be returning to the position. The procedures and conditions should be the same as for the a long-term temporary absence with one addition:

The Board will consider the need for outside consulting assistance depending on the circumstances of the transition and the board's capacity to plan and manage the transition and search. The Board will also determine the need for an Interim Executive Director, and plan for the recruitment and selection of an Interim Executive Director and/or permanent Executive Director.

As Executive Director Christine Buckmaster does not receive compensation. Life insurance policy in the amount of $100,000 is in place to fund the salary for two years (current market rate for similar positions) of a new Executive Director in the event of Christine Buckmaster's death.

Temporary, unplanned absence of critical staff
Other paid staff with direct and daily responsibility for monkey care will be evaluated every 6 months of employment to determine readiness to move into leadership positions should the need arise. In the event of a sudden, unplanned absence of the Executive Director, the Board and the appointed Acting Executive Director (if present) will determine candidates to fill positions that have a direct and daily responsibility for monkey care: Sanctuary Manager, Monkey Caregiver, Veterinary staff.

This Emergency Succession Plan will be reviewed and updated annually.

Zoonotic Disease Program

The SMH Zoonotic Disease Program consists of the following:

1) Comprehensive veterinary care minimizes risk of zoonotic disease through preventative measures and early detection and reporting.

    - The health and wellbeing of each monkey is assessed daily during rounds. If a monkey is found ill a clinical assessment is performed immediately. SMH Veterinarians formulate and implement a diagnostic plan.
        - If a condition is treatable, a treatment plan is implemented.
        - If a condition is terminal, euthanasia is performed at an appropriate stage.
        - Deceased monkeys are submitted to an independent pathology lab to confirm cause of death.
        - In the unlikely event of a diagnosis of a reportable zoonotic disease, as listed by the California Department of Public Health or California Department of Food and Agriculture, SMH Veterinarians contact these agencies to formulate a plan of action.

- o SMH Veterinarians give all monkeys annual health exams that include standard screenings (tuberculin tests) and vaccinations (tetanus and rabies).
- o SMH Veterinarians consult regularly with other local primate veterinary experts at universities and zoos to remain informed of significant disease incidences or changes in vaccination recommendations.

2) Veterinarians and staff use universal precautions when administering medical care to the monkeys that involve exposure to bodily fluids such as blood.

- o Disposable gloves are used when touching monkeys during an exam.
- o Surfaces and equipment are kept sanitized before and after each use.
- o Disposal of medical waste: needles and syringes are placed into a sharps container, other waste is disposed in general trash or in biohazard bags when Veterinarians deem appropriate.

3) Veterinarians and staff use standard precautions when in the monkey housing area.

- o Dedicated shoes are worn in monkey housing areas.
- o Hand sanitizing stations and disposable gloves are in the monkey housing area- hands must be sanitized before entering and leaving the monkey housing area, disposable gloves must be worn in the monkey housing area and removed before exiting.

4) Environmental cleaning and sanitation of monkey housing and care equipment further reduces risk of zoonoses.

- o All care staging areas, e.g., food prep area, is kept sanitized after each use. Food is stored in refrigeration or in pest proof containers.
- o Monkey indoor housing is swept and moped daily, and power-washed and sanitized weekly with bleach solution and other standard animal shelter sanitation solutions, e.g. Rescue. Outdoor habitats are cleaned and sanitized weekly.
- o A licensed pest control contractor provides preventative pest control services regularly.

5) Staff receives zoonotic disease awareness and prevention training annually.

- o Staff is required to have tuberculin screening annually and current vaccinations (tetanus, MMR, influenza).

Intended Uses of the EIR

The EIR will be used by the Sacramento County Board of Supervisors in evaluating the proposed project and rendering a decision to approve or deny the proposed project. In addition, the EIR will be used as an informational document by the public and by other responsible agencies including, but not limited to: California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service.

Table PD-1 below includes information required by Section 15124 of the CEQA Guidelines and summarizes the following intended uses of the EIR:

- A list of agencies that are expected to use the EIR in their decision-making.
- A list of permits and other approvals required to implement the project.
- A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or polices.

Table PD-1: Subsequent Permits, Approvals, Review, and Consultation Requirements

Agency	Approval
Sacramento County Board of Supervisors	Final Environmental Impact Report Certification
Sacramento County Board of Supervisors	Use Permit
Sacramento County Environmental Management Department	On-site Wastewater Disposal Permit
California Department of Fish and Wildlife	Consultation if nesting bird species found; Wild Animal Permit
Sacramento County Animal Control and Regulation	Wild Animal Permit
U.S. Department of Agriculture	Inspections pursuant to Animal Welfare Act
Global Federation of Animal Sanctuaries	Optional accreditation

Plate PD-3: Proposed Site Design

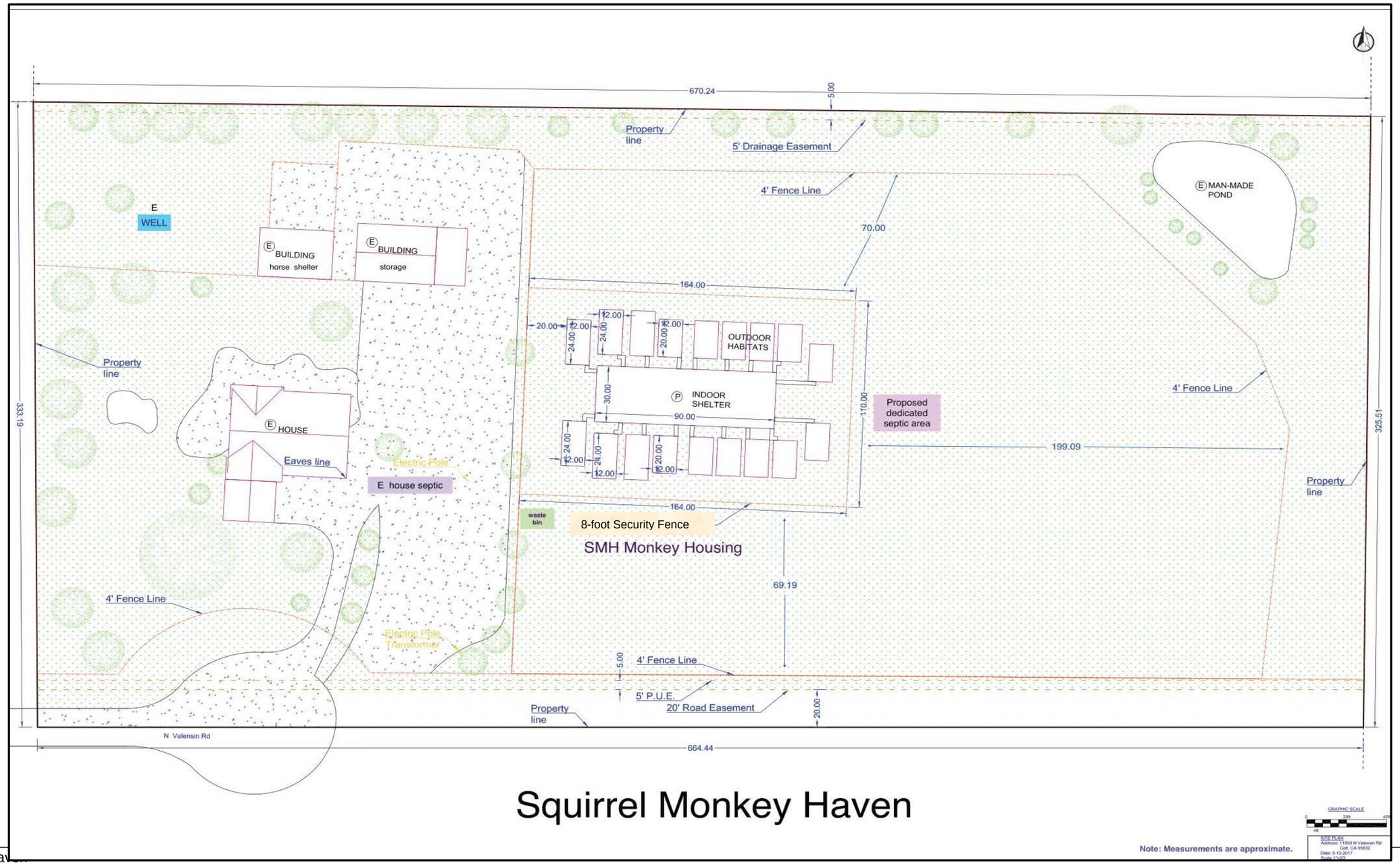


Plate PD-4: Landscape Plan

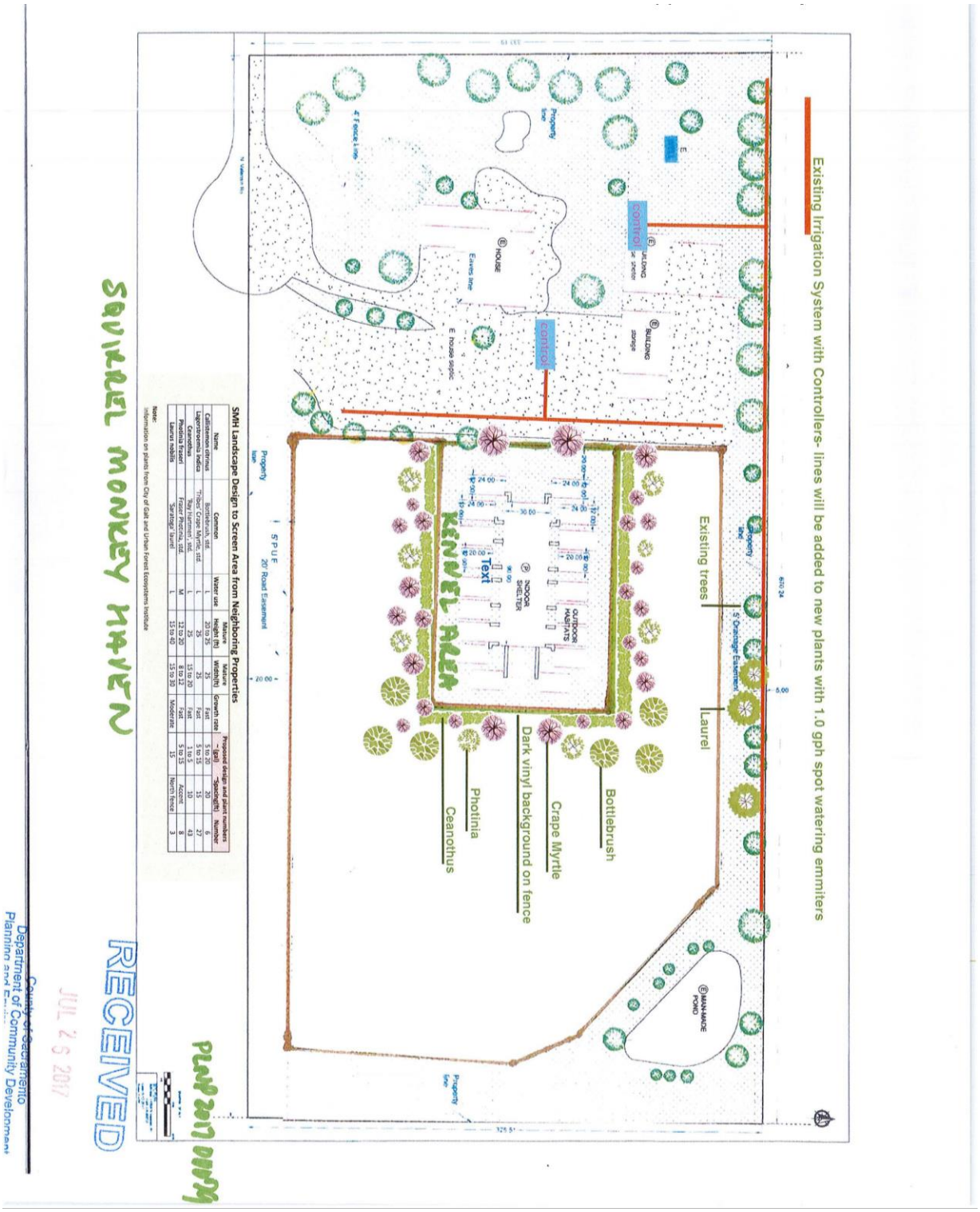


Plate PD-5: Facility Layout

PLNP 2017 - 00079

EXHIBIT 3 Squirrel Monkey Haven Indoor Shelter and Habitat Conceptual Floorplan
30' W x 90' L x 12' H steel Agriculture building with 1% sloped cement floor to center drain.
Materials and space mandated by regulations.
Interior caging 1" x 1" mesh wire on aluminum tubing frame.
Habitats 1" x 1" heavy cauge wire mesh with steel tube frame and bottom perimeter guards.

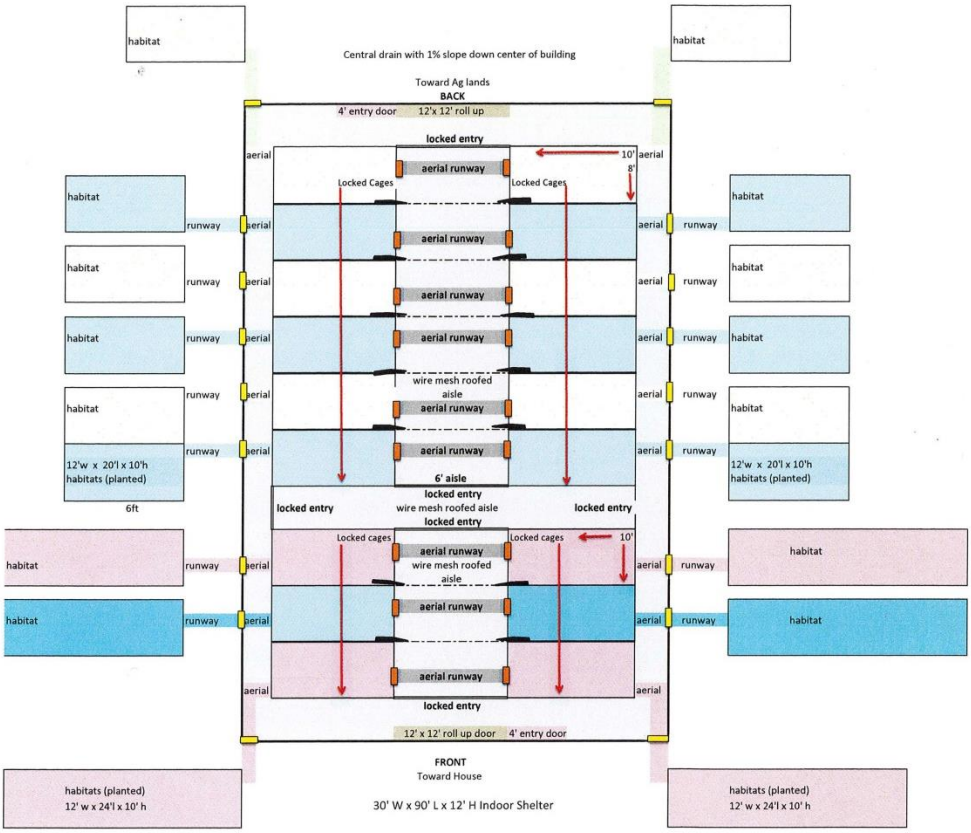
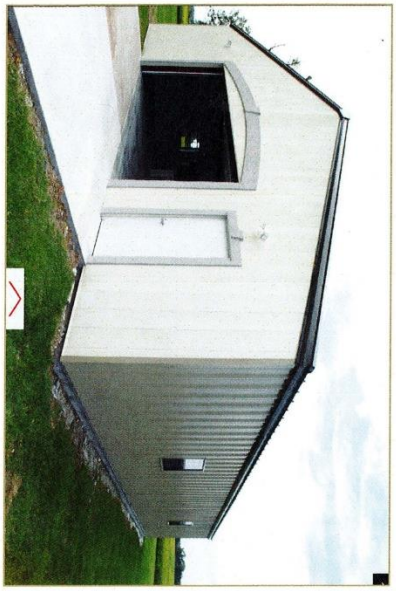
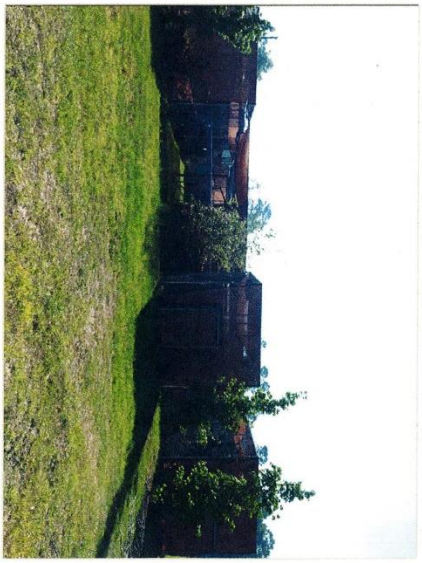


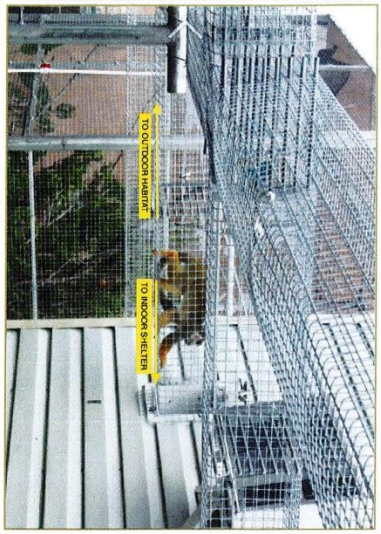
Plate PD-6: Example of Indoor and Habitat Design Components



Ag Building Indoor Shelter



Closest neighbor view (building in center)



Aerial Runway-tunnels

Habitats

Double Locked Entry

Plate PD-7: View 1 of proposed Facility

Plate PD-8: View 2 of Proposed Facility

2 ALTERNATIVES

INTRODUCTION

This chapter describes a range of reasonable alternatives to the proposed project. An evaluation comparing impacts of the alternatives to the impacts of the proposed project is included. This chapter concludes with the chosen “environmentally superior alternative.”

RANGE OF ALTERNATIVES

The State CEQA Guidelines require analysis of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the project’s basic objectives and avoid or substantially lessen any of the significant effects of the project (Section 15126.6[a]). The range of potentially feasible alternatives required in an EIR is governed by a “rule of reason” that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The State CEQA Guidelines further require that the alternatives be compared to the project’s environmental impacts and that the “no project” alternative is considered (Section 15126.6[d] [e]).

In determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project’s significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Only feasible alternatives need be considered. “Feasibility” of alternatives is described in the State CEQA Guidelines (Section 15364) as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” The ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency’s decision-making body (see PRC Section 21081[a] [3]).

PROJECT OBJECTIVES

Pursuant to Section 15126.6 of the CEQA Guidelines, an alternative must “attain most of the basic objectives of the project.” The stated objectives are as follows:

1. To operate a squirrel monkey sanctuary for an existing colony of squirrel monkeys retired from research.

2. To allow new squirrel monkeys that are retired from research to join the colony, up to a maximum of 55 total squirrel monkeys, in order to provide an alternative to euthanization.

3. To construct a “Kennel, Cattery, Small Animal Boarding and Training” facility that is adequately sized to provide shelter and care for a colony of 55 squirrel monkey and meets specifications sufficient to obtain accreditation from the Global Federation of Animal Sanctuaries.

4. To operate the facility onsite at the project applicants’ residence, who will be the lead caretakers for the squirrel monkeys, to reduce vehicle miles traveled and to ensure the primary caretakers are in close proximity to the facility.

Dismissed Alternative

Alternative Sites

Under this alternative, the proposed facility would be built with similar specifications and would house the same number of monkeys, but would be located at an alternative location within unincorporated Sacramento County.

The applicants were considering another five-acre property in an AR-5 zoning district in the Cosumnes community of unincorporated Sacramento County; however, the site was no longer available by the time the project was taken to the Consumes Community Planning Advisory Council hearing. While there are several other zoning districts that would allow the use, all of them would also require a use permit. Screening criteria for this alternative would depend largely upon the availability of a parcel for purchase that met the parcel size and zoning parameters needed for development.

This alternative was dismissed from further evaluation since many of these variables are out of the applicants’ control. Since no significant impacts were identified with the project proposal and the applicant already owns a parcel that would allow the use with approval of a use permit there is no need to evaluate an alternative site as the environmental impacts would likely be similar to the project as proposed. State CEQA Guidelines Section 15126.6 (f)(3) states that an EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

Description of Alternatives

Alternative 1: No Project

State CEQA Guidelines Section 15126.6 (e)(1) requires that the no project alternative be described and analyzed “to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project.” The no project analysis is required to discuss “the existing conditions at the time the notice of preparation is published…as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.”

Under the No Project Alternative, the project would not be built on the site and the site would remain in its current state. No physical environmental changes to the site would occur; however, this would not preclude future development proposals.

Alternative 2: Less Monkeys

This alternative would allow only 25 moneys; to be housed in the facility. This would result in a 50.5% reduction in the number of monkeys (51 monkeys) currently proposed by the applicant. With less monkeys, a smaller facility would be required to house them.

Alternative 3: No New Monkeys

This alternative assumes that the sanctuary facility would be located on the same site and built to the same specifications; however, the facility would only be able to house the proposed 51 monkeys and would not be able to take in new monkeys.

Impacts And Analysis

The following discussion evaluates the three project alternatives identified above. It is important to note that there were no significant impacts identified with the proposed project. Table ALT-1 summarizes which project objectives are met by the identified alternatives. Table ALT-2 summarizes the effect of the alternatives relative to the project.

Table ALT-1: Objectives Achieved by Project Alternatives

Project Objectives	Objective Met?		
	Alternative 1	Alternative 2	Alternative 3
To operate a squirrel monkey sanctuary for an existing colony of squirrel monkeys retired from research.	No	Yes	Yes
To allow new squirrel monkeys that are retired from research to join the colony, up to a maximum of 55 total squirrel monkeys, in order to provide an alternative to euthanization.	No	No	No
To construct a “Kennel, Cattery, Small Animal Boarding and Training” facility that is adequately sized to provide shelter and care for a colony of 55 squirrel monkey and meets specifications sufficient to obtain accreditation from the Global Federation of Animal Sanctuaries.	No	No	Yes
To operate the facility onsite at the project applicants’ residence, who will be the lead caretakers for the squirrel monkeys, to reduce vehicle miles traveled and to ensure the primary caretakers are in close proximity to the facility	No	Yes	Yes

Table ALT-2: Comparison of the Environmental Impacts of the Alternatives in Relation to the Proposed Project

Environmental Topic	Proposed Project	Alternative 1	Alternative 2	Alternative 3
Land Use	LTS	Similar	Similar	Similar
Hydrology, Drainage, and Water Quality	LTS	Similar	Similar	Similar
Public Services	LTS	Similar	Similar	Similar
Traffic and Circulation	LTS	Less	Similar	Similar
Air Quality	LTS	Similar	Similar	Similar
Noise	LTS	Similar	Similar	Similar
Cultural Resources	LTS	Similar	Similar	Similar
Greenhouse Gases and Climate Change	LTS	Similar	Similar	Similar
Biological Resources	LTSM	Similar	Similar	Similar

LTS = Less Than Significant Impact, LTSM = LTS with Mitigation

Alternative 1: No Project

The No Project Alternative could result in two different scenarios. It could result in no additional development on the site, or the site could develop with uses already permitted by right by the Sacramento County Zoning Code. With the implementation of the no build scenario, the proposed development would not occur and there would be no physical changes to the project site. This alternative would not affect demand for utilities, service systems, or energy use because no new uses would be developed, and there would be no effects relative to cultural resources, traffic, air quality, hydrology, greenhouse gases and climate change, noise, or biological resources because no construction would occur. Overall, the no build scenario would result in less environmental impacts than the proposed project.

The No Project Alternative does not rule out future developmental proposals however. The AR-5 zoning district allows by right such things as hog farms, stables, and corrals (commercial or private). The residents could begin a small farming operation involving plowing, higher water usage, and use of light to heavy equipment on the site. The Sacramento County Zoning Code does not limit the number of livestock or farm animals the owner could have on premise, nor the types of crops that could be grown; therefore, it could be argued that if one of these uses were proposed, the No Project Alternative has the potential for similar or greater impacts than the proposed project.

Alternative 2: Less Monkeys

This alternative would allow only 25 monkeys to be housed in the facility. This would result in a 50.5% reduction in the number of monkeys (51 monkeys) currently proposed by the applicant. This alternative would likely result in a small reduction in water usage and monkey waste output; however, the project's impacts on public services were already identified as less than significant so it is not significantly lessening a significant impact.

With less monkeys, a smaller facility would be required to house them. The potential impacts of the proposed project center around the construction of the monkey housing not the operation of the facility. Potential construction impacts, (i.e. disturbance of nesting birds and potential cultural resource discovery) would remain the same whether a larger facility accommodating 55 monkeys or a smaller facility that houses only 25 monkeys were to be built.

All the other environmental topic areas are expected to be similar to the project, since the only change to the project description would be the number of monkeys allowed. Overall, the effects of this alternative would be similar to the proposed project; however, it would only meet two of the four project objectives.

Alternative 3: No New Monkeys

This alternative assumes that the sanctuary facility would be located on the same site and built to the same specifications; however, the facility would only be able to house the proposed 51 monkeys and would not be able to take in new monkeys. This alternative would likely result in a small reduction in water usage and monkey waste output over time as monkeys passed away; however, the project's impacts on public services were already identified as less than significant. Once the last monkey passed away, the facility would no longer be in operation. This alternative essentially would limit the timeframe that the facility would be in operation.

All the other environmental topic areas are expected to be similar to the project, since the only change to the project description would be the number of monkeys allowed. Overall, the effects of this alternative would be similar to the proposed project; but would only meet three of the four project objectives.

Environmentally Superior Alternative

The No Project Alternative would result in less environmental impacts than the proposed project should the applicants choose to pursue a no build scenario. However, other uses, allowed by right, could have similar or greater impacts than the proposed project. This alternative would not meet any of the project's objectives.

Based on the information and the comparison of environmental impacts in Table ALT-2, both Alternative 2 and Alternative 3 would have similar impacts to the proposed project. Both alternatives would still construct a kennel facility and would necessitate the same mitigation measures as the proposed project. Neither alternative would meet all the objectives of the proposed project.

Potential impacts of the project center around the construction activities associated with the monkey housing. Only the No Project, no build scenario would avoid these potential impacts completely, and would be considered the environmentally superior alternative. However, the CEQA Guidelines state that when the No Project Alternative is the

environmentally superior alternative, the EIR must also identify the environmentally superior of the other alternatives (section 15126(e)(2)).

The proposed project and both Alternative 2 and Alternative 3 would build the kennel facility. Potential impacts of the proposed project and these alternatives are related to the construction activities associated erecting the kennel structure. Impacts from the proposed project and the two build alternatives would, therefore, be similar in nature and neither would be environmentally superior to the other.

3 LAND USE

INTRODUCTION

The purpose of this chapter is to examine the project's proposed land use and provide an analysis of its compatibility with the existing and planned land uses in the area. This chapter describes the land use context for the project site and its surroundings, including existing land use, land use designations, and zoning. In addition, this chapter includes a summary of applicable land use policies and describes the project's compatibility with these policies.

SETTING

According to the Sacramento County General Plan, the site has an Agricultural Residential land use designation (reference Plate LU-1). The Southeast Area Community Plan designates the property as having an Agricultural-Residential (AR-5) land use designation (reference Plate LU-2). The property is zoned A-5 (Agriculture – 5-acre minimum parcel size; reference Plate LU-3).

All adjacent parcels, with the exception of the east-bounding parcel, have similar land use and zoning designations as the subject parcel; these properties are developed with single-family residences and accessory structures. The parcel to the east is zoned Agricultural – 20 Acres (AG-20), has a General Agricultural 20 acres (AG-20) land use designation, and is in agricultural production.

Plate LU-1: General Plan 2030 Land Use Designations

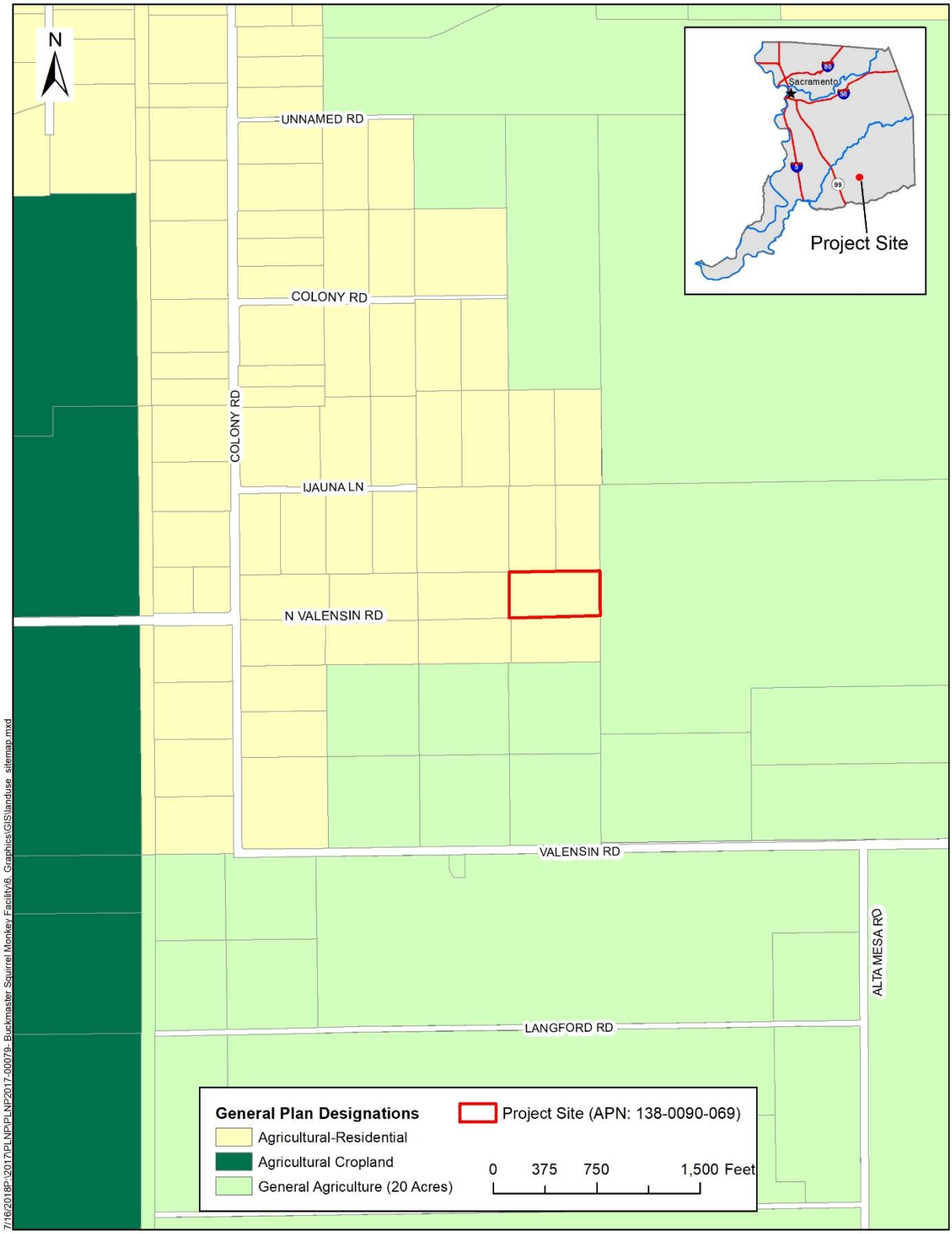


Plate LU-2: Southeast Area Community Plan Land Use Designations

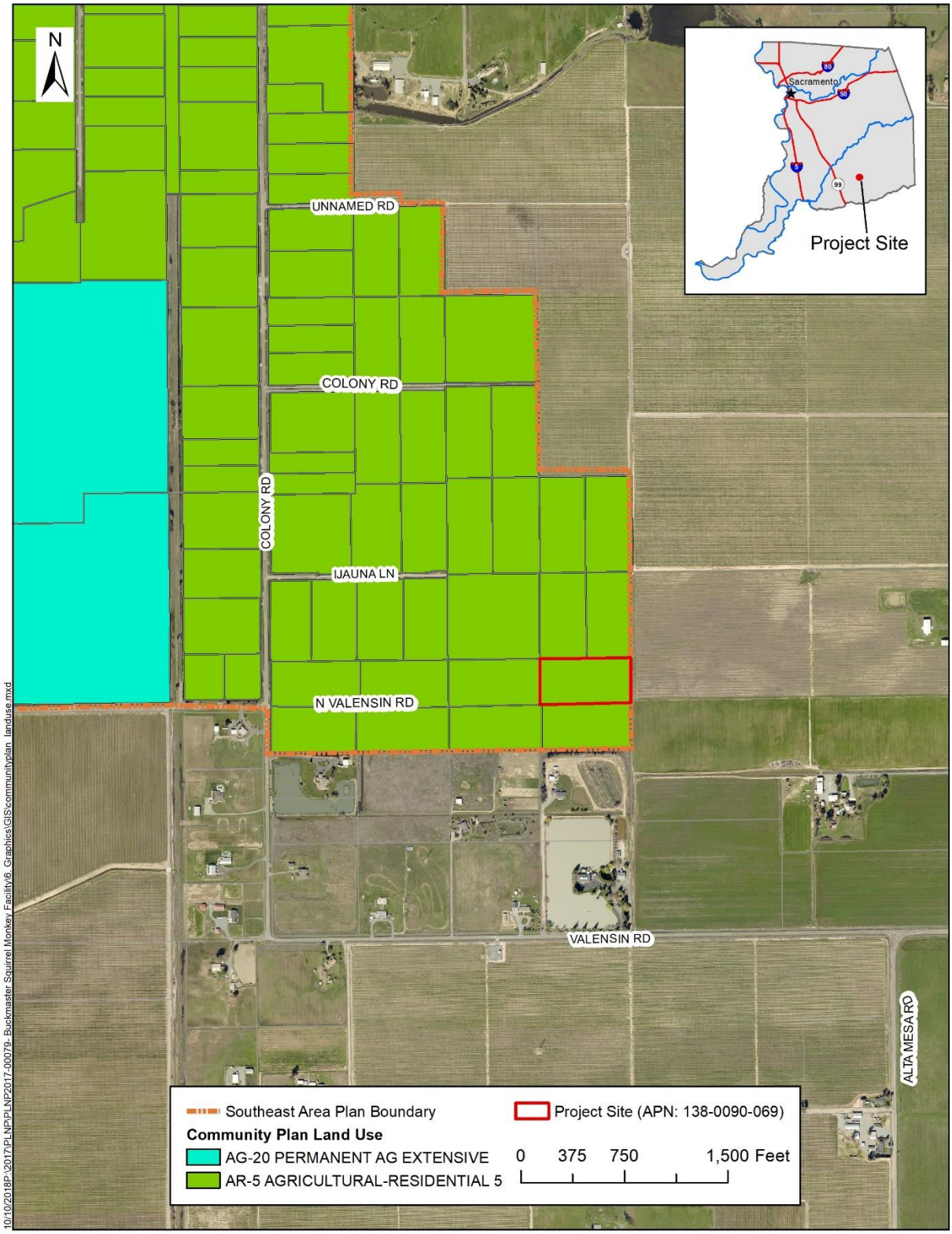
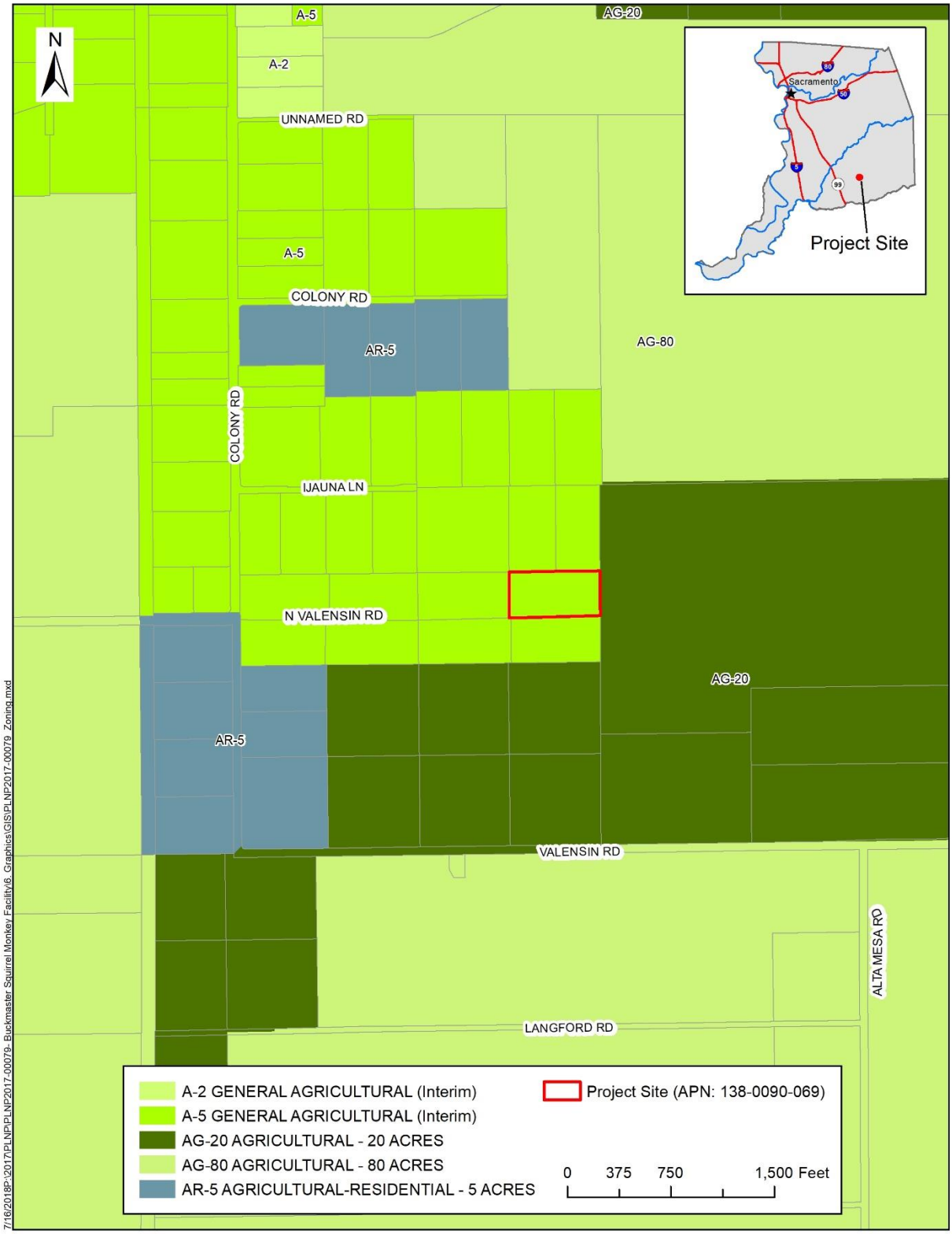


Plate LU-3: Zoning Designations



Regulatory Setting

Sacramento County General Plan

The project site is designated as Agricultural-Residential in the Sacramento County General Plan, which allows for one- to ten-acre minimum lots, resulting in a development density of 2.5 to 0.25 persons per acre. The Agricultural-Residential designation allows rural residential uses such as animal husbandry, small-scale agriculture, and other limited agricultural opportunities. The subject property is outside the county Urban Service Boundary (USB) and therefore public infrastructure for water and sewage is not available.

Southeast Area Community Plan

Sacramento County is divided into distinct community areas for planning purposes. These community planning areas encompass socially and economically similar areas with an established sense of community identity. The subject project site is located in the Southeast Area Community Plan and has an AR-5 (Agricultural-Residential 5-acres) land use designation.

Zoning Code

The current version of the Sacramento County Zoning Code was adopted by the Board of Supervisors in September 2015 and is used to encourage the most appropriate use of land; to conserve, protect and stabilize the value of property; to provide adequate open space for light and air; to prevent undue concentration of population; to lessen congestion on the streets; to facilitate adequate provisions for community utilities such as transportation, water, sewer, schools, parks and other publicly owned facilities; and to promote public health, safety and general welfare.

The project site is zoned A-5. A-5 zoning is an Interim Agricultural Holding Zone. The Interim Agricultural Holding Zones were applied to rural areas of the County that historically were used for agricultural purposes but had the potential to undergo a transition to urban development in the future. Pursuant to the Zoning Ordinance Title IV (Interim Zones), each of the Interim Agricultural Holding Zones has a correlation to a standard base zoning district in the current Zoning Ordinance which is used to establish allowable uses and development standards. The A-5 interim zone district is treated in the same manner as properties that are designated as AR-5 (Agricultural Residential) on the County Zoning Map and Zoning Ordinance. According to Section 3.2.5 of Sacramento County Zoning Code; Table 3.1 of the Zoning Ordinance, kennels; catteries; and, small animal boarding and training facilities in the AR-5 land use zones are permitted subject to the issuance of a conditional use permit by the Zoning Administrator.

Zoning Code Section, 3.2.4.A states:

> If a use is not listed in Table 3.1, 3.2, or 3.3, included in a use definition, or shown as a permitted or conditionally permitted use in any zoning district, the use is prohibited, unless the Planning Director determines that either:
>
> 1. The use is substantially similar in characteristics, intensity, and compatibility to a use or uses within the zoning district, applicable to the property; or
> 2. The use would be appropriate in the zoning district, applicable to the property as a permitted or conditional use.

Zoning Code, Section 3.2.4.B states:

> In those cases where the Planning Director makes a determination that the use meets either Sections 3.2.1 or 3.2.2, the use shall conform to all the regulations, conditions of approval, and use standards applicable to the similar described use(s). If the use would be appropriate in the zoning district as a conditional use, a Conditional Use Permit shall be heard by the designated body for the similar use.

The Planning Director determined pursuant to the findings in Section 3.2.4.A of the Zoning Code that the proposed monkey sanctuary was substantially similar to a kennel, which is allowed in an A-5 zoning district subject with the issuance of a Conditional Use Permit by the Zoning Administrator.

Significance Criteria

Based on Appendix G of the State CEQA Guidelines, the project would result in a significant impact to land use if it would:

- physically disrupt or divide an established community;
- conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Impacts And Analysis

The analysis in this section is based on a review of the Sacramento County General Plan of 2005-2030 (2030 General Plan), the Southeast Area Community Plan, and the Sacramento County Zoning Code. The project's consistency with applicable planning documents is used as the basis for determining the effects of the project on existing and planned land uses.

Impact: Consistency with General Plan, Southeast Area Community Plan, and County Zoning Code

General Plan

The General Plan does not specifically address accessory uses or structures. The majority of the General Plan's goals, objectives, and policies related to the Agricultural-Residential land use designation pertain to expansion of the Urban Services Boundary (USB), protection of prime agricultural lands, and maintaining a minimum parcel size of five acres. The proposed project will not change the USB, will be served by private well and septic, is not designated as prime agricultural lands on the important farmlands map, and is five acres in size. Therefore, the project is consistent with the County's General Plan and Agricultural-Residential land use designation.

Community Plan

The Southeast Area Community Plan designation will remain Agricultural-Residential and the project is consistent with the uses and densities allowed in an Agricultural-Residential land use. The proposed project meets the five-acre minimum parcel size designated by the AR-5 land use designation in the Southeast Area Community Plan. The project will not disrupt or divide the existing community.

Zoning Code

Zoning Ordinance Section 5.3 provides development standards for Agricultural-Residential Zone districts. Section 5.3.2 addresses accessory structures and has different standards based on type of agricultural structure such as private or commercial or if the structure is residential such as a garage or shed. The proposed kennel facility, while not open to the public is somewhat commercial in nature as there will be two employees that do not live on the property and pursuant to the Building Code will be required to meet ADA parking and accessibility requirements. The setback requirements for commercial agriculture accessory structures is greater than for private agricultural accessory structures, however private accessory structures have greater restrictions on size and height. Table I identifies the zone district standards for both types of accessory structures and the proposed project's compliance with a respective standard.

Table LU-1: Development Standard Consistency

	Table 5.5 Commercial Accessory Structure Standards	Table 5.6 Private Accessory Structure Standards	Proposed Project
Minimum Parcel Size	5 acres per zoning	2 acres	5 acres
Setbacks, Building/Structures (measured from property line)			
Front/Side Street	55 feet	25 feet / 17.5	162 feet structure 123 feet kennel fence
Side Yard	50 feet	10 feet	295 feet structure 267 feet kennel fence
Rear Yard	50 feet	20 feet	137 feet structure 97 feet kennel fence
Building Height	50 feet	30 feet	12 feet
Maximum Building Size	No restrictions	200 % primary structure (4,570 feet)	2,700 square feet

As shown in

Table LU-1: Development Standard Consistency, the proposed project significantly exceeds minimum setback requirements and is well below the height and maximum size thresholds regardless of which accessory structure standard is used.

Some of the neighboring properties have horses and other livestock. Kennels are considered a generally compatible use within agricultural and agricultural/residential areas which allow other animal related uses. The proposed project is not expected to significantly alter current land uses in the area. Assuming compliance with the Zoning Code development standards, and standards of Animal Care and Regulation, no significant impacts are expected. Since the project is consistent with the General Plan, community plan, and County Zoning Code, the project's land use impacts are considered ***less than significant***.

MITIGATION MEASURES

No mitigation is required.

4 HYDROLOGY, DRAINAGE, & WATER QUALITY

INTRODUCTION

This chapter describes the existing hydrologic and water quality setting for the project site, including runoff, storm drainage, flooding, and groundwater. Applicable regulations and policies regarding hydrology and water quality are discussed, and impacts that may result from project implementation are identified.

ENVIRONMENTAL SETTING

CLIMATE

The climate of the Sacramento area is Mediterranean, with cool wet winters and hot dry summers. Precipitation within the Sacramento River watershed falls as both rain and snow, with precipitation in the winter falling primarily as snow in the higher elevations. Annual, monthly, and daily precipitation varies widely within the watershed, with the highest precipitation totals generally falling in winter in the Sierra Nevada, and in the northern part of the watershed. The high variability in precipitation, snowfall, and snowmelt results in highly variable runoff patterns each year and month during late fall, winter, and spring. Rainfall occurs primarily from November through April and ranges from about 7 to 37 inches per year, with an average annual rainfall of approximately 18 inches (Sacramento Groundwater Authority 2013).

HYDROLOGY

Water resources within the county include four rivers (Sacramento, American, Cosumnes, and Mokelumne), numerous streams, the Sacramento River Delta (Delta), and an extensive groundwater basin. The primary watershed within Sacramento County is the Sacramento River Basin, which encompasses 26,500 square miles and is bounded by the Sierra Nevada Mountains to the east, Coast Ranges to the west, the Cascade Range and Trinity Mountains to the north, and the Delta to the south. Within the Sacramento River Basin there are several sub-basins or smaller watersheds that drain to the tributaries of the Sacramento River including the Willow Creek (South) watershed. The project site is located within the Willow Creek (South) watershed.

DRAINAGE

The average runoff from the Sacramento River Basin is estimated to be 21.3 million acre-feet per year, and the melting snow pack in the Sierra Nevada keeps the water flowing during dry summer months. Drainage within Sacramento County, including the project vicinity, is primarily provided by engineered drainage systems consisting of pipes, gutters, swales, ditches, and graded land (County of Sacramento 2010).

The project site generally drains northwesterly towards the drainage channel at the northern end of property. Drainage continues west across the neighboring parcel where

it is channeled into the Willow Canal, which continues westerly across the next two properties before heading south across N. Valensin Road. The canal continues westerly across agricultural fields where it intersects Badger Creek, which terminates into the Cosumnes River. At its intersection with McKenzie Road, the Willow Canal also has a southern diversion, which flows into Laguna Creek (South) which terminates into the Cosumnes River (please see Plate WQ-1).

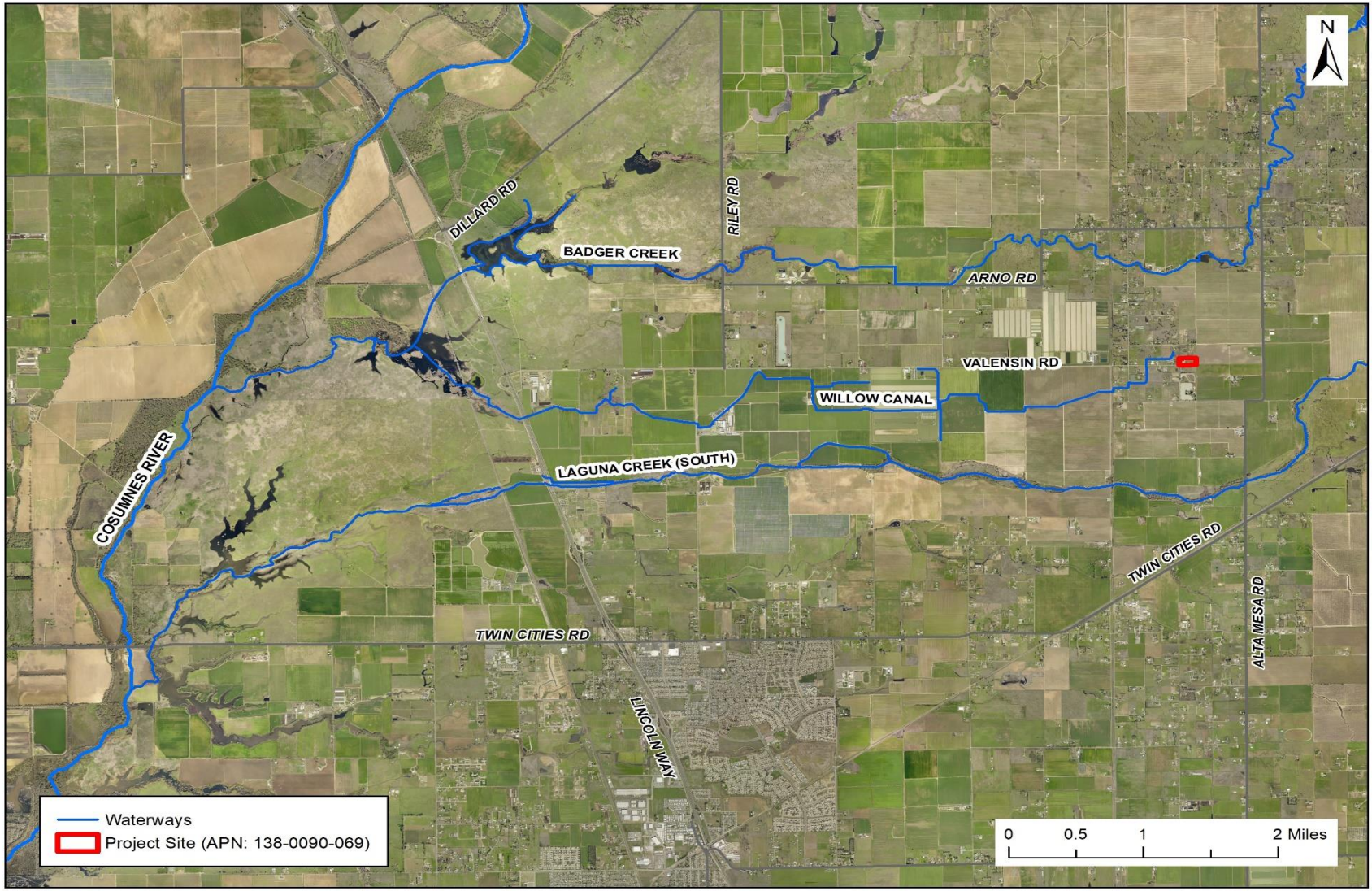
Regulatory Setting

Federal

The Clean Water Act (CWA) is the primary federal statute governing the protection of water quality and was established to provide a comprehensive program to protect the nation's surface waters. U.S. Environmental Protection Agency (EPA) is the federal agency with primary authority for implementing regulations adopted pursuant to the CWA. The basis of the CWA consists of the federal Water Pollution Prevention and Control Act (Water Pollution Act) passed in 1948. The Water Pollution Act was substantially reorganized and expanded in subsequent amendments passed in 1972 and in 1977, when "Clean Water Act" became its common name. The Water Pollution Act required the EPA to establish nationwide effluent standards on an industry-by-industry basis. The 1972 amendment established the National Pollutant Discharge Elimination System (NPDES) program. As a result of the reauthorization of the CWA in 1987, Sections 402(p) through 405 were added. One of the results of the new sections was the creation of a framework for regulating discharges under the NPDES permit program, which is discussed later in this section.

Under federal law, EPA has published water quality regulations under Volume 40 of the Code of Federal Regulations. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question, and (2) criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. EPA has designated the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) with the authority to identify beneficial uses and adopt applicable water quality objectives. EPA has delegated to the State of California the authority to implement and oversee most of the programs authorized or adopted for CWA compliance through the Porter-Cologne Water Quality Control Act of 1969 (Porter-Cologne Act), described below.

Plate WQ-1: Regional Drainage from Project Site



STATE

In California, the State Water Resources Control Board has broad authority over water quality control issues for the state. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the state by the federal government under the CWA. Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt water quality control plans for all areas in the region and establish water quality objectives in the plans. The Central Valley RWQCB is responsible for water resources in the project vicinity.

On January 20, 2005, the SWRCB adopted the Low Impact Development (LID) Policy, which promotes “sustainability” as a key parameter to be considered during the design and planning process for future development. The sustainability practice promotes LID to benefit water supply and contribute to water quality protection. LID has been a proven approach in other parts of the country and is seen in California as an alternative to conventional stormwater management. It is necessary to incorporate LID into the design of proposed projects to meet the “maximum extent practicable” standard of the Phase II General Permits (see discussion of NPDES permits, below). LID practices include measures such as reducing impervious surface area, using natural drainage systems, and designing development to correspond to existing terrain.

PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Act is California’s statutory authority for the protection of water quality. Under the Porter-Cologne Act, the state must adopt water quality policies, plans, and objectives that protect the state’s waters for the use and enjoyment of the people. The act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update basin plans. Basin plans are the regional water quality control plans required by both the CWA and Porter-Cologne Act in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California.

The Porter-Cologne Act also requires waste dischargers to notify the RWQCBs of their activities through the filing of reports of waste discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, NPDES permits, Section 401 water quality certifications, and other approvals. The RWQCBs also have the authority to issue waivers to reports of waste discharge/waste discharge requirements for broad categories of “low threat” discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

STATE NON-DEGRADATION POLICY

In 1968, the SWRCB adopted a nondegradation policy aimed at maintaining high quality for waters in California. The nondegradation policy states that the disposal of wastes into state waters shall be regulated to achieve the highest water quality consistent with maximum benefit to the people of the state and to promote the peace, health, safety, and welfare of the people of the state. The policy provides as follows:

a) Where the existing quality of water is better than required under existing water quality control plans, such quality would be maintained until it has been demonstrated that any change would be consistent with maximum benefit to the people of the state and would not unreasonably affect present and anticipated beneficial uses of such water.

b) Any activity which produces waste or increases the volume or concentration of waste and which discharges to existing high-quality waters would be required to meet waste discharge requirements.

Local

Sacramento County General Plan

The Conservation Element of the County General Plan (2011) contain the following policies that are applicable to the project:

Policy CO-24. Comply with the Sacramento Areawide National Pollutant Discharge Elimination System Municipal Stormwater Permit (NPDES Municipal Permit) or subsequent permits, issued by the Central Valley Regional Water Quality Control Board (Regional Board) to the County, and the Cities of Sacramento, Elk Grove, Citrus Heights, Folsom, Rancho Cordova, and Galt (collectively known as the Sacramento Stormwater Quality Partnership [SSQP]).

Policy CO-26. Protect areas susceptible to erosion, natural water bodies, and natural drainage systems.

Policy CO-30. Require development projects to comply with the County's stormwater development/design standards, including hydromodification management and low impact development standards, established pursuant to the NPDES Municipal Permit. Low impact development design and associated landscaping may serve multiple purposes including reduction of water demand, retention of runoff, reduced flooding and enhanced groundwater recharge. (Modified 2016)

Policy CO-31. Require property owners to maintain all required stormwater measures to ensure proper performance for the life of the project.

Policy CO-105a. Encourage flood management designs that respect the natural topography and vegetation of waterways while retaining flow and functional integrity. (Added 2016)

Policy CO-107. Maintain and protect natural function of channels in developed, newly developing, and rural areas.

Policy CO-114. Protect stream corridors to enhance water quality, provide public amenities, maintain flood control objectives, preserve and enhance habitat, and offer recreational and educational opportunities.

Policy CO-118. Development adjacent to waterways should protect the water conveyance of the system, while preserving and enhancing the riparian habitat and its function.

SACRAMENTO COUNTY STORMWATER AND EROSION CONTROL

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. The Construction General Permit is issued by the State Water Resources Control 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 Water Board prior to construction. The General Permit requires preparation and implementation of a site-specific Stormwater Pollution Prevention Plan (SWPPP) that must be kept on site at all times during construction for review.

Applicable projects applying for a County grading permit must show proof that a NOI has been filed and must submit a copy of the SWPPP. Although the County has no enforcement authority related to the Construction General Permit, the County is required by its Municipal Stormwater Permit (Order Number R5-2008-0142) to verify that the SWPPP program includes six minimum components (public education and outreach on storm water impacts, public involvement participation, illicit discharge detection and elimination, construction site storm water runoff control, post-construction storm water management in new development and redevelopment, and pollution prevention/good housekeeping for municipal operations).

In addition to the above construction controls, new development is required to include treatment of urban runoff using the BMPs required by the current standard defined in the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions, 2014*. The BMPs include a number of options for treatment including simple grassy swales and rain gardens, to more complex systems that use cisterns, pumps, and sand filters. 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/newdevelopment.aspx

Sacramento County Floodplain Management Ordinance

Sacramento County has participated in the National Flood Insurance Program since 1979. A County Floodplain Management Ordinance which meets or exceeds the minimum standards of the Federal Emergency Management Agency (FEMA) is a requirement of such participation. The Floodplain Management Ordinance specifically describes what types of development activities are allowed and how proposed development may be permitted. The purpose of floodplain management is to realize the extent of flood hazards and to manage the flooding in a manner so as to reduce damage to structures and infrastructure and to minimize the risk of human casualties.

All proposed development activity in floodplains -- those areas designated by FEMA on the Flood Insurance Rate Maps for Sacramento County (Community Number 060262) and other areas subject to flooding -- must be reviewed and permitted by the County's Floodplain Administrator (Department of Water Resources) prior to construction.

Sacramento County Environmental Management Department

The Environmental Management Department **Liquid Waste Program** oversees the following activities throughout the County of Sacramento:

- Design, construction, and installation of on-site wastewater treatment systems and wastewater holding tanks.
- Businesses and vehicles engaged in the cleaning of septic tanks, portable toilets, and wastewater holding tanks.
- On-site wastewater processing and or treatment facilities

Significance Criteria

Based on CEQA Guidelines Appendix G, the project would result in a significant impact to hydrology or water quality if it would:

- violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

- substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of

impervious surfaces, in a manner which would result in substantial erosion or siltation on- or offsite;

- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the amount of surface runoff in a manner which would result in flooding on- or offsite;
- create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- impede or redirect flood flows;
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

ISSUES NOT DISCUSSED FURTHER

A discussion of groundwater supply is contained within the Public Services chapter of this document. The project would not result in more than one acre of impervious surfaces and would not interfere with groundwater recharge. Impacts related to ground water supply are ***less than significant***. Please reference Chapter 5 Public Services for further discussion.

Because of the distance from the nearest open waterbody, the Pacific Ocean (more than 100 miles to the west), and the nearest lake, Folsom Lake (more than 37 miles to the north), the project would not be affected by inundation as a result of seiche or tsunami. The project site is flat and there are no steep areas that would have the potential to generate mudflows.

IMPACTS AND ANALYSIS

IMPACT: 100-YEAR FLOODPLAIN

The project is located within a FEMA “Zone X”(outside the 100-year floodplain) area and will not place structures in a FEMA designated floodplain or flood hazard area. County Department of Water Resources (DWR) staff (Michel Meaney) provided correspondence on July 20, 2017, confirming that:

- the project is located within a FEMA “Zone X”;
- The parcel may be part of a local floodplain. Additional review would be needed to determine the flood elevation, if any;

- an existing drainage easement along the north property boundary is located over an existing drainage ditch;
- existing drainage control is located at the centerline of Valensin Road at a drainage culvert (crossing north to south), approximately 1,400 feet west of the parcel.

DWR indicate that while the parcel is outside the FEMA floodplain, it may be within a more localized floodplain. Flood elevations would be determined during plan review and before issuance of building permits. DWR placed a condition of approval upon the project, that minimum pad/floor elevations would be required pursuant to the Sacramento County Floodplain Management Ordinance. Compliance with the Floodplain Management Ordinance will minimize any impacts due to drainage from the project site; drainage impacts that could result in on- and/or off-site flooding are ***less than significant.***

IMPACT: CREATE OR CONTRIBUTE RUNOFF WHICH WOULD EXCEED THE CAPACITY OF EXISTING OR PLANNED STORMWATER DRAINAGE SYSTEMS OR PROVIDE SUBSTANTIAL ADDITIONAL SOURCES OF POLLUTED RUNOFF

In California, primate waste is not classified as biohazardous and is disposed as regular waste by typical commercial waste management contractors. A letter from the California National Primate Research Center at UC, Davis stated:

> "Neither the California Department of Public Health nor California Occupational Health and Safety Administration classifies non-human primate waste as medical or biohazardous waste unless the animal is either experimentally infected or suspected, by a veterinarian, to be infected with a pathogen that could be transferred to humans (zoonosis).
>
> The plan to contain monkey waste, i.e., feces and urine soiled materials (e.g., wood shavings, wood mulch straw/hay), in regular heavy-duty plastic bags and disposing it as regular waste in a container provided and removed by a commercial waste company is appropriate for this squirrel monkey population.
>
> In the unlikely event a monkey is diagnosed with a zoonosis, the SMH zoonotic disease prevention plan states appropriately that this waste would be treated as biohazardous when deemed necessary be veterinarians. Biohazardous medical waste is contained in receptacles provided and collected by commercial medical waste contractors. The staff associated with SMH is experienced to manage such waste appropriately."

Indoor housing would be sanitized weekly. This involves stripping the absorbent bedding (wood shavings) with feces and urine residues out of the cage, rinsing, applying a sanitizer, and then rinsing again. The indoor housing would have a central drain in the cement floor to collect rinse water during cleaning. The rinse water would drain into a dedicated septic system that would be designed by RC Berti Construction of

Wilton with input, permitting, and inspection by Sacramento County Environmental Management Division. The project, therefore, would not exceed the capacity of existing or planned drainage systems and would not contribute polluted runoff to those systems. Impacts are considered ***less than significant.***

Impact: Water Quality

As discussed in the regulatory framework section of this chapter, there are local ordinances that must be complied with during construction. The Stormwater Ordinance prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance systems and local creeks. In addition, the Land Grading and Erosion Control Ordinance requires private construction sites disturbing one or more acres or moving 350 cubic yards or more of earthen material to obtain a grading permit.

Correspondence from the State Regional Water Quality Control Board (Muhl) stated:

> "We reviewed the information submitted to us by the Sacramento County Planning Department and reviewed the plan and other information you submitted to our office via email. Based on the information submitted we have no current water quality concerns with the Squirrel Monkey Haven project."

The Sacramento County Environmental Management Department regulates the installation of septic systems and will be responsible for reviewing the plans and specifications for the proposed new system to be installed on-site. Generally, new septic systems must meet certain setbacks from other sources of water (e.g., wells, ponds, drainages). Current regulations indicate that a septic tank must be at least 100-feet from a well, 50 feet from a pond, and 50-feet from a drainage or stream. The proposed septic system would be able to achieve these setback requirements.

The project involves minimal grading of less than 1 acre and less than 350 cubic yards of material and will not need to secure a grading permit. The new septic system will require review from the County EMD, but appears to be able to achieve required setbacks from other sources of water. Impacts to water quality are considered ***less than significant***.

Post Construction Stormwater Quality

As discussed in the regulatory framework section of this chapter, post-construction stormwater quality measures include, but are not limited to, BMPs, vegetated swales, and water quality detention basins. DWR staff reviewed the proposed project and did not provide conditions requiring the implementation of post construction stormwater quality; however, this does not preclude DWR from requiring stormwater control devices and/or measures later on. DWR will have the opportunity to review and provide additional comment during building improvement plan check. Neither DWR nor RWQCB provided comments or water quality requirements specific to operating a kennel or monkey sanctuary. Impacts to water quality and post-construction are considered ***less than significant***.

Mitigation Measures

No mitigation is required.

5 PUBLIC SERVICES

INTRODUCTION

This chapter describes the utility systems (water, wastewater, solid waste, energy, and telecommunications) and public services (police and fire) serving the project site and identifies the potential impacts that could result from implementation of the project. For more information on surface and groundwater resources relating to the project, see Chapter 4 “Hydrology & Water Quality.”

SETTING

The subject parcel is located outside the Urban Services Boundary, therefore no public water supply or sewer services are currently available. A new private septic system is proposed to coincide with the existing well and septic system.

PRIVATE WELLS

The project site contains an existing well, which serves the existing single-family residence. The proposed facility plan relies on the existing well and indicates 41,000 gallons of water to be used annually, which equates to approximately 112 gallons per day (this estimate is for the Squirrel Monkey facility only).

PRIVATE SEPTIC SYSTEMS

The project site has one existing private septic system that serves the single-family residence. The applicant is proposing one additional septic system to capture runoff during cleaning (rinsing) of the facility; however, the applicant has indicated that monkey excrement will be bagged, placed in a covered bin, and disposed of via Cal-Waste Management Recovery Systems of Galt.

SOLID WASTE SERVICE

Unincorporated area residents south of Calvine Road receive service from Central Valley Waste, a private waste hauling firm, under a contract with Sacramento County Department of Waste Management and Recycling.

ENERGY SERVICES

Sacramento Metropolitan Utility District (SMUD) is responsible for providing electricity, and Pacific Gas and Electric (PG&E) is responsible for providing natural gas in the project area. Electrical and gas utility connections are currently available to service this area.

Fire Protection

The project site is located within the Herald Fire Protection District (HFPD), which provides fire protection and emergency services. The nearest station to the project site is HFPD Station 87 at 12746 Ivie Road, approximately 4.0 miles south. HFPD has an additional station (Station 88) located at 11620 Clay Station Road, approximately 7.0 miles northeast of the project site.

The project site is not located in a state responsibility area and is not located in a California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone.

Law Enforcement

The project site is located within the jurisdiction of the Sacramento County Sheriff's Department. The Sacramento County Sheriff's Department provides general law enforcement services to the unincorporated areas of Sacramento County, as well as the incorporated cities of Rancho Cordova and Isleton. The nearest sheriff's station is the Wilton Service Center, which is located 6.5 miles north of the project site at 7800 Dillard Road.

Regulatory Setting

Federal

USDA Animal Welfare Act

Passed by Congress in 1966, the Animal Welfare Act (AWA) sets general standards for humane care and treatment that must be provided for certain animals that are bred for commercial sale, sold sight unseen (Internet sales), exhibited to the public, used in biomedical research, or transported commercially. Congress assigned the U.S. Department of Agriculture (USDA) the responsibility for enforcing the AWA. The Animal and Plant Health Inspection Service (APHIS) is the agency within USDA responsible for ensuring this occurs. These regulations are included in Appendix F.

State

California Department of Fish and Wildlife Wild Animal Permit

The California Department of Fish and Wildlife requires a Restricted Species Permit for every person who imports, exports, transports, or possesses any restricted animal listed in Section 671(c), Title, 14, of the California Code of Regulations (CCR). These regulations are included in Appendix E.

Local

Sacramento County General Plan Policies

The following policies related to Public Facilities are applicable to the proposed project:

> **Policy PF-13.** Public sewer systems shall not extend service into agricultural-residential areas outside the urban policy area unless the Environmental Management Department determines that there exists significant environmental or health risks created by private disposal systems serving existing development and no feasible alternatives exist to public sewer service.
>
> **Policy PF-14.** Independent community sewer systems shall not be established for new development.

Animal Care and Regulation Wild Animal Permit

In addition to the Use Permit for a kennel, the applicant will be required to obtain a Wild Animal Permit from Sacramento County Department of Animal Care and Regulation pursuant to Section 8.26 of the Sacramento County Code. The Chief of Animal Control shall, with the approval of the Director, set minimum standards for the proper care and maintenance both of a kennel or cattery or a place of keeping of wild animals and of the animals kept therein which are, at a minimum, consistent with applicable State and Federal standards.

The Chief of Animal Control shall conduct investigation of the background of the owner and the applicant and the history and physical condition of the kennel or cattery or the keeping of wild animal, including physical inspection of the premises, as is deemed appropriate. The Chief of Animal Control shall evaluate each application to determine whether the operation of the kennel or cattery or the keeping of the wild animal will involve a risk to the health, safety, or welfare of the public or the animal to be kept.

Each applicant or permit holder must demonstrate that the premises, facilities, cages, vivariums, aquariums and equipment addressed in the permit comply with the Standards on an ongoing basis. Upon request of the Chief of Animal Control, and during normal business hours or by a mutually agreed time for appointment, the applicant or permit holder must make the premises, facilities, cages, vivariums, aquariums and equipment available for inspection by the Chief of Animal Control. All animals to be kept or kept pursuant to the permit shall be subject to visual inspection on the designated premises by the Chief of Animal Control. Failure to allow visual inspection as required shall be deemed failure to comply with the requirements of this chapter and shall be considered cause for denial of application or for revocation of the permit.

If the applicant or permit holder fails to meet the requirements set in the Standards, the Chief of Animal Control shall so notify the applicant or permit holder in writing within three (3) calendar days of discovery of the failure to comply with the Standards. The written notice shall advise the applicant or permit holder of any existing deficiency and the corrective measures that must be taken and completed to bring the premises,

facilities, cages, vivariums, aquariums and equipment into compliance with the Standards.

The applicant or permit holder shall be given no more than thirty (30) calendar days and no less than fourteen (14) calendar days to complete the corrective measures, except that if any deficiency threatens the health or welfare of the animals kept or of the public, such corrective measures shall be made immediately or no later than one day after the discovery of the deficiency.

Failure to correct the noted deficiencies as required shall be deemed failure to comply with the Standards and shall be considered cause for denial of application or for revocation of the permit and may be considered cause for animal nuisance abatement. These regulations are included in Appendix D.

Significance Criteria

The project would have a significant impact on public services and utilities if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new water or wastewater treatment facilities, the construction of which could cause significant environmental effects;
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the expansion of which could cause significant environmental effects;
- Have insufficient water supplies available to serve the project from existing entitlements and resources;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the projected demand in addition to the provider's existing commitments;
- Be served by a landfill without sufficient capacity to accommodate the project's solid waste needs.
- Not comply with federal, state, and local statutes and regulations related to solid waste;
- Adversely affect local and regional energy supplies, requiring additional capacity or depleting energy resources, due to the wasteful, inefficient, or unnecessary consumption of energy; or
- Result in substantial adverse physical impacts associated with the provision of new or physically-altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for
    - Fire protection,
    - Police protection,
    - Schools,
    - Parks, or

  - Other public facilities.
- Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

ISSUES OR POTENTIAL IMPACTS NOT DISCUSSED FURTHER

The project is located outside of the Urban Service Boundaries and would not rely upon public water or public sewage facilities, and therefore could not exceed the capacity of these facilities.

The project is not proposing any new residential construction and would not result in the need for additional demand in fire protection, police protection, schools, or park facilities.

Construction and operation of the project would follow all relevant federal, state, and local statutes and regulations associated with collection and disposal of waste generated at the site; there would be no impact related to violation of solid waste laws and regulations and this topic is not discussed further.

The provision of electrical service to the facility would be provided by the property's existing SMUD service, and would not constitute a significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy. The proposal also does not conflict nor obstruct state or local plans for renewable energy or energy efficiency. SMUD was contacted about the proposed project and had no comments to offer.

IMPACTS AND ANALYSIS

IMPACT: EFFECTS TO WATER SUPPLY

The applicant is proposing to use the existing private well on the property for the proposed facility's operations. The proposed facility plan estimates 41,000 gallons of water will be used annually (112 gallons per day) for facility needs including monkey drinking water, cleaning, and landscaping. On average, each person in a household uses about 100 gallons of water a day. Sacramento County Environmental Management Department (EMD) has reviewed the proposed project and concluded that the existing well is adequate to serve the existing home and the proposed monkey sanctuary. EMD also evaluated the location of the facility from adjacent well sites and indicated that the proposed facility met all required setbacks. Impacts related to groundwater supply are ***less than significant***.

IMPACT: WASTEWATER TREATMENT

Table PS-1 compares the estimated fecal and urine outputs of the 51 squirrel monkeys to one human and one adult horse.

Table PS-1: Comparison of Fecal and Urine Output

	Estimated daily urine output (gal)	Estimated daily feces output (lb)	Estimated daily water intake (gal)
51 squirrel monkeys (values are totals for all 51 monkeys; 98 lbs total)	0.8	0.8	1.8
One adult human	0.4	0.3	0.5
One adult horse 1,000 lb	2.4	37.0	6.0

The 51 squirrel monkeys daily output of urine would be equivalent to 2 humans and 1/4th of what a horse would produce. Fecal output would be nearly equivalent to 3 humans and slightly less than 1/37th of what a horse would produce.

A dedicated septic system will be constructed to capture all effluent from the project site. The proposed septic system will be constructed to County standards and is subject to inspection by EMD. EMD reviewed the proposed location and determined that it meets setbacks from the existing well and from those on the neighboring properties. Compliance with County standards will ensure that impacts related to the proposed septic system remain ***less than significant***.

IMPACT: EFFECTS TO SOLID WASTE FACILITIES

Absorbent bedding (e.g. wood shavings) would be used indoors on the cement floor of each cage to trap and deodorize feces and urine. Soiled bedding would be removed daily and all bedding would be removed weekly and refreshed after cages are sanitized. Outdoor habitats would be mulched and soiled areas cleaned and refreshed twice weekly. Soiled bedding/mulch and animal waste would be put in heavy-duty plastic bags and disposed of in a commercial waste bin that has a heavy securable cover. The bin will be stored next to the facility and will be picked up weekly by Cal-Waste Management Recovery Systems of Galt. Cal-Waste has confirmed that they will schedule weekly pick-up to coordinate with building cleaning days such that waste will be picked up within 24 hours of weekly cleaning days.

According to correspondence from the Global Federation of Animal Sanctuaries and UC Davis, the State of California does not consider primate waste biohazardous and does not require it to be handled as biohazardous medical waste (refer to Appendix L and M).

Waste can be handled and disposed as regular waste by typical commercial waste management contractors.

The California Department of Resources Recycling and Recovery (CalRecycle) provides estimated solid waste generation rates for various sources. Data from the CalRecycle website indicates 10 pounds per day for single-family homes (CalRecycle 2013). The expected fecal output from the monkeys is 0.8 pounds per day, which would result in a monthly output of 24 pounds a month. This increase in solid waste would not fill a substantial proportion of the available permitted capacity at Keifer Landfill and would not result in the need to expand or construct new landfill facilities. Impacts to solid waste facilities would be ***less than significant.***

Impact: Police Services

The Sacramento County Sheriff's Department Subdivision and Project Review representative conducted a review and assessment of the project planning documents associated with the project. The Sheriff's Department provided the following conditions pursuant to the Sacramento County Zoning Code and Crime Prevention through Environmental Design standards:

- Approved numbers or addresses shall be placed on all new or existing buildings in such a position as to be easily read from the street or road fronting the property. The minimum size of the numbers shall not be less than six (6) inches and shall be mounted immediately adjacent to a light source and shall also contrast with their background.

- Applicant shall comply with the Sacramento County Emergency Alarm Ordinance prior to the installation of any alarm system as specified in Sacramento County Code 9.96.085. Additional details about the county alarm ordinance can be obtained by contacting the Sacramento County Sheriff's Department Alarm Ordinance Bureau at (916) 874-4616 or e-mail to: **alarms@sacsheriff.com**.

- Applicant shall comply with the Sacramento County Gate Permit requirements as outlined in Sacramento County Code 17.04, Section 503.6.1 for any gate installations subject to this code.

- Applicant shall amend their ***Emergency Prevention and Action Plan*** to include **immediate notification** of the Sacramento County Sheriff's Department in the event of a missing or escaped monkey. Additionally, this plan shall also be amended to provide notification to the Sacramento County Sheriff's Department of the return or capture of any monkey reported as missing or escaped.

The Sheriff expressed no other concerns with the facility or the plans for operation. Impacts to police services are considered ***less than significant.***

Impact: Animal Control Services

The Director of Sacramento County Animal Control and Regulation, David Dickinson, was contacted about the project and indicated that a Wild Animal permit would be required. Mr. Dickinson indicated that a Wild Animal permit would not be granted until after the inspection of the facility; therefore, such inspection could not take place until a Use Permit is approved for the facility. He also indicated that he "…did not anticipate any problems as long as they do not deviate from the proposed plans" and that …"prior to populating the facility with the Monkeys we would need documentation for each animal including medical history with vaccinations."

The facility would be subject to regular inspections from the Department of Animal Control and Regulation. Should the Director determine that the facility is not in compliance with the permit, the applicant will be given the opportunity to correct any violations, or the permit may be revoked and the facility would need to be vacated. The Director has indicated that if the facility is in compliance he sees no detrimental impacts associated with it. Impacts associated with provision of Animal Care services are, therefore, considered ***less than significant.***

Mitigation Measures

No mitigation is required.

6 TRAFFIC/CIRCULATION

INTRODUCTION

This chapter evaluates the impacts on the vehicular components of the transportation system that may result from implementation of the project. The existing traffic and transportation setting and regulatory framework are described and the impacts of implementing the project are identified and assessed.

SETTING

The project site is located at the terminus of North Valensin Road in the unincorporated Southeast Area community. North Valensin Road is a private road serving eight parcels.

ROADWAY SYSTEM

North Valensin Road is a west-east private roadway/access easement that extends approximately 0.40 miles from its intersection at Colony Road. The western portion of this intersection is the terminus of Valensin Road (further discussion below). N. Valensin Road is a single-lane, paved road.

Colony Road predominantly runs north-south. It begins at Dillard Road and runs south-easterly for 0.65 miles before continuing south for 6.00 miles and terminating at the southern portion of Valensin Road. Colony Road is a public two-lane, paved collector street.

Valensin Road begins where Arno Road intersects itself 3.0 miles west of its intersection at Colony Road; there is also another segment of Valensin Road, located 0.32 miles to the south at the southern terminus of Colony Road. Valensin Road is classified as a collector street and is a public, two-lane roadway that runs west-east.

ACCESS AND PARKING

Access to the property is currently provided by a driveway off N. Valensin Road, which is a private right-of-way serving eight parcels. The access easement for the private roadway does not preclude property owners from operating businesses.

REGULATORY SETTING

LOCAL

SACRAMENTO COUNTY GENERAL PLAN

The Sacramento County General Plan (Sacramento County 2011a) recognizes mobility as an important principle in the development of transportation infrastructure. Mobility

goals of the general plan relate to the need for a network of “complete” streets to enable multi-modal (automobile, transit, pedestrian, and bicycle) forms of transport in all urban, suburban, and rural neighborhoods within the county. Goals and policies for mobility, including roadways, transit, and bicycle and pedestrian facilities that are relevant to the development of the project are listed below.

Policy CI-9. Plan and design the roadway system in a manner that meets Level of Service (LOS) D on rural roadways and LOS E on urban roadways, unless it is infeasible to implement project alternatives or mitigation measures that would achieve LOS D on rural roadways or LOS E on urban roadways. The urban areas are those areas within the Urban Service Boundary as shown in the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service Boundary are considered rural.

Policy CI-10. Land development projects shall be responsible to mitigate the project’s adverse impacts to local and regional roadways.

Policy CI-12. To preserve public safety and local quality of life on collector and local roadways, land development projects shall incorporate appropriate treatments of the Neighborhood Traffic Management Program.

Significance Criteria

Based on the State CEQA guidelines, the project would have a significant impact on traffic and transportation elements if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- 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;
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency response.

ISSUES NOT DISCUSSED FURTHER

The project is located in a rural area of unincorporated Sacramento County. The estimated ten daily trips would not significantly increase hazards or pose a substantial safety risk.

The estimated ten daily trips do not conflict with any ordinances or policies and would not significantly contribute to roadway congestion or impact existing transit facilities.

The project would not have impacts on air traffic, and would not result in incompatible uses in the study area. Impacts related to air traffic are therefore not addressed in this analysis.

IMPACTS AND ANALYSIS

ACCESS AND PARKING

There are no specific parking requirements for kennels in the County Zoning Code; however, Sacramento County Planning and Environmental Review staff reviewed the proposed project and have determined that because the amount of traffic to the site is expected to be minor, due to the nature of the proposed use, the existing driveway and paved areas adjacent to the existing home and barn are adequate to serve the proposed facility. The Building Department will require that an ADA compliant parking space be designated along with an accessible path of travel from the parking area to the kennel be provided. The Building Department requirements will be included as part of the project conditions if the project is approved.

Land Division and Site Improvement Review (LDSIR) staff reviewed the project and had no comments. DOT Staff reviewed the project and provided advisory conditions if additional driveway or gates were proposed in the future.

TRAFFIC GENERATION

A traffic impact study is typically required if any of the following are true:

1. The project will generate 100 or more new a.m. or p.m. peak hour vehicle trip-ends.
2. The project will generate 1,000 or more daily vehicle trip-ends.
3. New project traffic will substantially affect an intersection or a roadway segment already identified as operating at an unacceptable level of service.
4. The project may create a hazard to public safety.
5. The project will substantially change the off-site transportation system or connections to it.

A trip-end is defined as either an origin or destination of a trip. For example, a round trip between two locations (home-shopping) creates two trip-ends at each location.

The a.m. peak hour is defined as the peak consecutive hour during the 7-9 a.m. peak period, and the p.m. peak hour is defined as the peak consecutive hour during the 4-6 p.m. peak period. Both are on a weekday. Special time periods may be required depending on the land use.

As shown in Table TC-1, the project will generate 10 daily trips. In addition, one additional truck trip per week will be generated to accommodate the waste disposal for the facility.

Impacts related to traffic and circulation associated with the proposed project are ***less than significant.*** No further analysis needed.

Table TC-1: Trip Generation Table

Condition	Zoning or Use (Area)	Source	Daily Trip Rate	Daily Trips
Proposed Project	Animal Shelter 2 Employees[1]	Applicant	3.00 VTE/Emp	6
	2 Visitors	Applicant	2.00 VTE/Visitor	4
Total Trips				10

Notes: VTE =Vehicle Trip Ends
Emp=Employee
[1] Assumed 3 Daily trips per employee

MITIGATION MEASURES

No mitigation is required.

7 AIR QUALITY

INTRODUCTION

This chapter summarizes the existing air quality conditions and regulatory framework within or adjacent to the project site, and includes an analysis of potential short- and long-term air quality impacts associated with the project.

ENVIRONMENTAL SETTING

The project site is located in the unincorporated area of Sacramento County, California, which is part of the Sacramento Valley Air Basin (SVAB). The SVAB also includes all of Butte, Colusa, Glenn, Shasta, Sutter, Tehama, Yolo, and Yuba Counties; the western portion of Placer County; and the eastern portion of Solano County.

The ambient concentrations of air pollutant emissions are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below.

CLIMATE AND ATMOSPHERIC CONDITIONS

The SVAB is a relatively flat area bordered by the north Coast Ranges to the west and the northern Sierra Nevada to the east. Air flows into the SVAB through the Carquinez Strait, which is the only breach in the western mountain barrier, and moves across the Sacramento River–San Joaquin River Delta from the San Francisco Bay area.

The Mediterranean climate type of the SVAB is characterized by hot, dry summers and cool, rainy winters. During the summer, daily temperatures range from 50 degrees Fahrenheit (°F) to more than 100°F. The inland location and surrounding mountains shelter the area from much of the ocean breezes that keep the coastal regions moderate in temperature. More than half the total annual precipitation falls during the winter rainy season (November through February); the average winter temperature is a moderate 49°F. Also characteristic of SVAB winters are periods of dense and persistent low-level fog, which are most prevalent between storms.

May through October is ozone season in the SVAB. This period is characterized by poor air movement in the mornings with the arrival of the Delta sea breeze from the southwest in the afternoons. In addition, longer daylight hours provide a plentiful amount of sunlight to fuel photochemical reactions between reactive organic gases (ROG) and oxides of nitrogen (NO_X), which result in ozone formation. Typically, the Delta breeze transports air pollutants northward out of the SVAB; however, a phenomenon known as the Schultz Eddy prevents this from occurring approximately half of the time from July to September. The Schultz Eddy phenomenon causes the wind to shift southward and

blow air pollutants back into the SVAB. This phenomenon exacerbates the concentration of air pollutants in the area and contributes to the area violating the ambient-air quality standards.

The local meteorology of the project site and surrounding area is represented by measurements recorded at the Sacramento station. The normal annual precipitation is approximately 17 inches. January temperatures range from a normal minimum of 38°F to a normal maximum of 54°F. July temperatures range from a normal minimum of 59°F to a normal maximum of 93°F (WRCC 2016). The predominant wind direction and speed is from the south at eight miles per hour (WRCC 2016, 2002).

Air Pollutants and Ambient Air Quality Standards

Criteria Air Pollutants

Concentrations of ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM_{10}), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead are "criteria air pollutants" used as indicators of ambient air quality conditions. Criteria air pollutants are air pollutants for which acceptable levels of exposure can be determined and for which an ambient air quality standard has been set by the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (ARB). Concentrations of emissions from criteria air pollutants are used to indicate the quality of the ambient air. Brief descriptions of key criteria air pollutants, including emission source types and their associated acute and chronic health effects, are summarized in Table AQ-1.

Table AQ-1: Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Ozone	secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO_2)	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO_2)	coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO_2 exposure to chronic health impacts

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Respirable particulate matter (PM_{10}), Fine particulate matter ($PM_{2.5}$)	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO_2 and ROG	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis
Lead	metal processing	reproductive/ developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases.

[1] "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

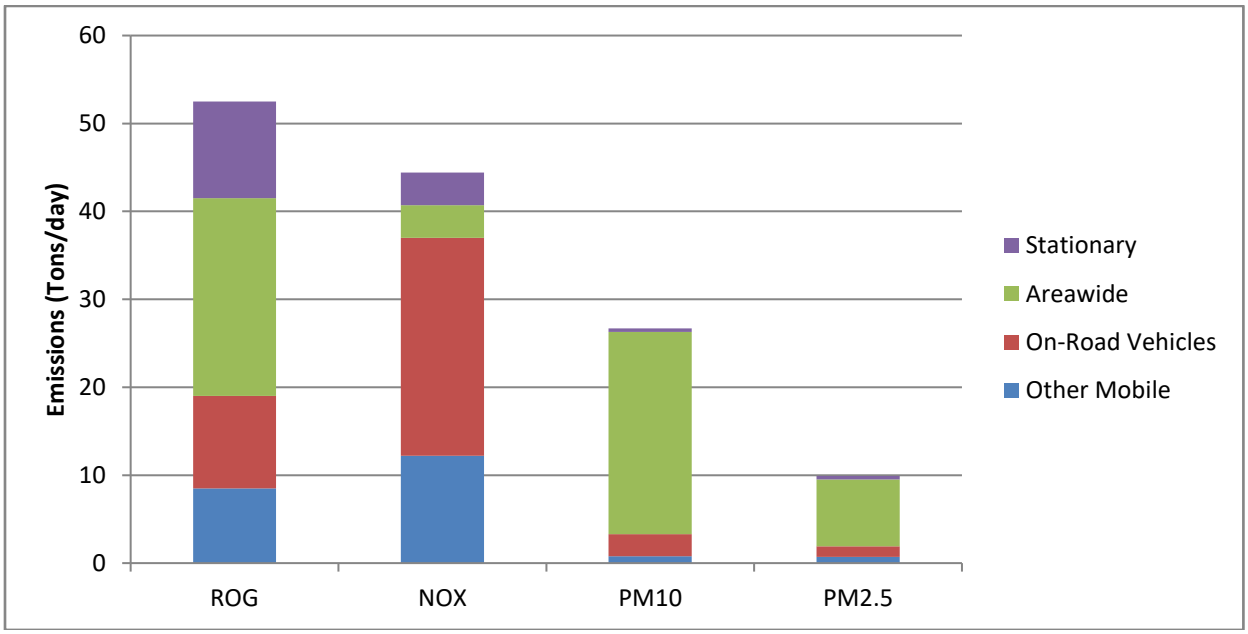
[2] "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Sources: EPA 2016. Data compiled by Ascent Environmental 2016.

Emission Sources

ARB developed an emissions inventory projection for Sacramento County for 2015 (ARB 2013a). The county inventory is generally representative of the types of emissions sources that are included in the county and project area. The county emissions inventory is summarized in Table AQ-2.

Table AQ-2: Criteria Air Pollutants & Precursors (tons per day) Sacramento County 2015



Notes: NO_x = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; ROG = reactive organic gases.

Source: ARB 2013a.

According to the ARB inventory, mobile sources, such as cars and trucks, are the largest contributor to the estimated air pollutant level of sulfur oxides (SO_X), CO, and NO_X, accounting for approximately 50%, 80%, and 83%, of total respective emissions in Sacramento County. Mobile sources account for 36% of ROG emissions. Area sources (e.g., the use of consumer products, residential fuel combustion, architectural coatings and related process solvents, and farming operations) are the largest contributor to ROG emissions at 43%. Stationary sources, such as industrial and manufacturing activities, contribute about 21% of ROG emissions.

Area sources account for approximately 83% and 74% of the county's PM_{10} and $PM_{2.5}$ emissions, respectively, most of which result from construction and demolition, vehicle travel on paved and unpaved roads, and residential fuel combustion activity (ARB 2013a).

Toxic Air Contaminants

Concentrations of toxic air contaminants (TACs) are also used to indicate the quality of ambient air. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. Unlike criteria air pollutants, TACs are pollutants of local concern because they can present harmful effects when they are emitted in close proximity to sensitive receptors. Sensitive receptors are people, or facilities that generally house people (e.g., schools, hospitals, residences), that may experience adverse effects from unhealthful concentrations of air pollutants.

The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most prominent being diesel PM (ARB 2009). In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene. Naturally occurring asbestos (NOA) is also recognized by ARB as a TAC.

Odors

Sacramento Metropolitan Air Quality Management District (SMAQMD) identifies typical land uses that have the potential to result in increases in odorous emissions and provides recommendations for siting new sensitive land uses in close proximity to these land uses. Examples of land uses that have the potential to generate considerable odors include wastewater treatment plants, sanitary landfills, recycling and composting facilities, food packaging plants, petroleum refineries, and chemical manufacturing plants (SMAQMD 2016a). The project area does not include any facilities known to generate considerable odors and no known land uses with the potential to generate considerable odors are located within the screening distances identified by SMAQMD (SMAQMD 2016a).

REGULATORY SETTING

FEDERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

EPA is in charge of implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), enacted in 1970. Congress made the most recent major amendments to the CAA in 1990.

CRITERIA AIR POLLUTANTS

The CAA required EPA to establish national ambient air quality standards (NAAQS). As shown in Table AQ-3, EPA has established primary and secondary NAAQS for the following criteria air pollutants: CO, NO_2, SO_2, respirable and fine particulate matter (PM_{10} and $PM_{2.5}$), and lead. The primary standards protect the public health and the secondary standards protect public welfare. The CAA also required each state to prepare an air quality control plan referred to as a State implementation plan (SIP).

The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

TOXIC AIR CONTAMINANTS/HAZARDOUS AIR POLLUTANTS

Air quality regulations also focus on TACs, which federal agencies refer to as hazardous air pollutants (HAPs). In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts may not be expected to occur. (By contrast, for the criteria air pollutants, acceptable levels of exposure are determinable; Table 7-3 shows the established ambient standards). Instead, EPA and, in California, ARB, regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum available control technology or best available control technology for toxics to limit emissions. These, in conjunction with additional rules set forth by SMAQD, described below under "Sacramento Metropolitan Air Quality Management District," establish the regulatory framework for TACs.

EPA has programs for identifying and regulating HAPs. Title III of the CAAA directed EPA to promulgate National Emissions Standards for HAPs (NESHAP). The NESHAP for major sources may differ from that for area sources of HAPs. Major sources are defined as stationary sources with potential to emit more than 10 tons per year of any HAP or more

than 25 tons per year of any combination of HAPs; all other sources are considered area sources. EPA first developed technology-based emission standards designed to produce the maximum emission reduction achievable. These standards are generally referred to as requiring maximum available control technology for toxics. For area sources, the standards may be different, based on generally available control technology. EPA has also promulgated health risk-based emissions standards when deemed necessary to address risks remaining after implementation of the technology-based NESHAP standards.

Table AQ-3: Ambient Air Quality Standards

Pollutant	Averaging Time	California[a,b]	National[c]	
			Primary[b,d]	Secondary[b,e]
Ozone	1-hour	0.09 ppm (180 µg/m^3)	–[e]	Same as primary standard
	8-hour	0.070 ppm (137 µg/m^3)	0.075 ppm (147 µg/m^3)	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	Same as primary standard
	8-hour	9 ppm[f] (10 mg/m^3)	9 ppm (10 mg/m^3)	
Nitrogen dioxide (NO_2) [g]	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	53 ppb (100 µg/m^3)	Same as primary standard
	1-hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	—
Sulfur dioxide (SO_2	24-hour	0.04 ppm (105 µg/m^3)	—	—
	3-hour	—	—	0.5 ppm (1300 µg/m^3)
	1-hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	—
Respirable particulate matter (PM_{10})	Annual arithmetic mean	20 µg/m^3	—	Same as primary standard
	24-hour	50 µg/m^3	150 µg/m^3	
Fine particulate matter ($PM_{2.5}$)	Annual arithmetic mean	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
	24-hour	—	35 µg/m^3	Same as primary standard
Lead [g]	Calendar quarter	—	1.5 µg/m^3	Same as primary standard
	30-Day average	1.5 µg/m^3	—	—
	Rolling 3-Month Average	–	0.15 µg/m^3	Same as primary standard
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m^3)	No national standards	
Sulfates	24-hour	25 µg/m^3		
Vinyl chloride [f]	24-hour	0.01 ppm (26 µg/m^3)		
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km		

Notes: µg/m^3 = micrograms per cubic meter; km = kilometers; ppb = parts per billion; ppm = parts per million.

[a] California standards for ozone, SO_2 (1- and 24-hour), NO_2, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] Concentration expressed first in units in which it was issued. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[c] National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. The PM_{10} 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. The $PM_{2.5}$ 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. Environmental Protection Agency for further clarification and current federal policies.

[d] National primary standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[e] National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[f] The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Source: ARB 2015

STATE

CALIFORNIA AIR RESOURCES BOARD

ARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required ARB to establish California ambient air quality standards (CAAQS).

CRITERIA AIR POLLUTANTS

ARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases, the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to achieve and maintain the CAAQS by the earliest date practical. The act specifies that local air districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources, and provides air districts with the authority to regulate indirect sources.

TOXIC AIR CONTAMINANTS/HAZARDOUS AIR POLLUTANTS

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for ARB to designate substances as TACs. Research, public participation, and scientific peer review are required before ARB can designate a substance as a TAC. To date, ARB has identified more than 21 TACs and

adopted EPA's list of HAPs as TACs. Most recently, PM exhaust from diesel engines (diesel PM) was added to ARB's list of TACs.

Once a TAC is identified, ARB adopts an airborne toxics control measure for sources that emit that particular TAC. If a safe threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate best available control technology for toxics to minimize emissions.

ARB has adopted diesel exhaust control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of ARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be 85 percent less in 2020 than in the year 2000. Adopted regulations are also expected to continue to reduce formaldehyde emissions from cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

Local

Sacramento County Attainment Status

As described above, EPA and ARB adopted NAAQS and CAAQS to regulate air quality within air basins in the state and nation. Both agencies make determinations about the status of each air basin relative to these standards, known as attainment designations. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are "nonattainment," "attainment," and "unclassified." Nonattainment areas are areas that do not meet air quality standards, whereas attainment areas meet air quality standards. "Unclassified" is used in areas that cannot be classified on the basis of available information as meeting or not meeting the NAAQS or CAAQS.

The most current National and California attainment designations for Sacramento County are shown in Table AQ-4, below, for each criteria air pollutant. Sacramento County is in nonattainment status for the following pollutants:

- Ozone: CAAQS and NAAQS standards,
- PM_{10}: CAAQS standard, and
- $PM_{2.5}$: NAAQS Standard.

Table AQ-4: Attainment Status Designations for Sacramento County

Pollutant	Federal Standard	State Standard
Ozone	Nonattainment (1-hour)[1] Classification = Severe	Nonattainment (1-hour) Classification = Serious[2]
	Nonattainment (8-hour)[3] Classification = Severe	Nonattainment (8-hour)
	Nonattainment (8-hour)[4] Classification = Severe	
Respirable particulate matter (PM_{10})	Attainment (24-hour)	Nonattainment (24-hour)
		Nonattainment (Annual)
Fine particulate matter ($PM_{2.5}$)	Nonattainment (24-hour) Classification = Moderate	(No State Standard for 24-hour)
	Unclassified/Attainment (Annual)	Attainment (Annual)
Carbon monoxide (CO)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (8-hour)	Attainment (8-hour)
Nitrogen dioxide (NO_2)	Unclassified/Attainment (1-hour)	Attainment (1-hour)
	Unclassified/Attainment (Annual)	Attainment (Annual)
Sulfur dioxide (SO_2)[5]	Attainment (1-hour)	Attainment (1-hour)
		Attainment (24-hour)
Lead (Particulate)	Unclassified/Attainment (3-month rolling average)	Attainment (30 day average)
Hydrogen Sulfide	No Federal Standard	Unclassified (1-hour)
Sulfates		Attainment (24-hour)
Visibly Reducing Particles		Unclassified (8-hour)

Notes: EPA designates areas as "unclassified/attainment" if they meet the standard or are expected to meet the standard despite a lack of monitoring data.

[1] Air Quality meets Federal 1-hour Ozone standard (77 FR 64036). U.S. EPA revoked this standard, but some associated requirements still apply. SMAQMD attained the standard in 2009. SMAQMD has requested EPA recognize attainment to fulfill the requirements.

[2] Per Health and Safety Code (HSC) § 40921.5(c), the classification is based on 1989 – 1991 data, and therefore does not change.

[3] 1997 Standard.

[4] 2008 Standard.

[5] Cannot be classified.

Sources: SMAQMD 2013b; Data compiled by Ascent Environmental 2016.

Sacramento Metropolitan Air Quality Management District

SMAQMD is the primary agency responsible for planning to meet federal and State ambient air quality standards in Sacramento County. SMAQMD works with other local air districts in the Sacramento region to maintain the region's portion of the SIP for ozone. The SIP is a compilation of plans and regulations that govern how the region and State will comply with the CAA requirements to attain and maintain the federal ozone standard. Ozone plans in the Sacramento Metro region include the 1994 Sacramento Area Regional Ozone Attainment Plan and the 2016 8-Hour Ozone Attainment and Reasonable Further Progress Plan (SMAQMD 2016). These plans were produced to develop a strategy to attain the federal one-hour and eight-hour ozone standards. The Sacramento Region has been designated as a "severe" eight-hour ozone nonattainment area with an extended attainment deadline of June 15, 2019 (SMAQMD 2016).

Additionally, SMAQMD has developed a set of CEQA guidelines for use by lead agencies when preparing environmental documents. The guidelines contain thresholds of significance for criteria pollutants and TACs, and also make recommendations for conducting air quality analyses. Once SMAQMD guidelines have been consulted and the air quality impacts of a project have been assessed, the lead agency's analysis undergoes a review by SMAQMD. SMAQMD submits comments and suggestions to the lead agency for incorporation into the environmental document. These guidelines are discussed further below. SMAQMD also enforces air quality regulations, educates the public about air quality, and implements a number of programs to provide incentives for the replacement or retrofit of older diesel engines and to influence land use development in Sacramento County.

All projects are subject to adopted SMAQMD rules and regulations in effect at the time of construction (SMAQMD 2016). Specific rules applicable to the construction of the project may include the following:

> **Rule 201: General Permit Requirements.** Any project that includes the use of equipment capable of releasing emissions to the atmosphere may be required to obtain permit(s) from SMAQMD before equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact SMAQMD early to determine whether a permit is required, and to begin the permit application process. Portable construction equipment (e.g., generators, compressors, pile drivers, lighting equipment) with an internal combustion engine greater than 50 horsepower must have a SMAQMD permit or ARB portable equipment registration.
>
> **Rule 402: Nuisance.** A person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause or have natural tendency to cause injury or damage to business or property.
>
> **Rule 403: Fugitive Dust.** The developer or contractor is required to control dust emissions from earthmoving activities or any other construction activity to prevent airborne dust from leaving the project site.
>
> **Rule 442: Architectural Coatings.** The developer or contractor is required to use coatings that comply with the content limits for volatile organic compounds specified in the rule.

TOXIC AIR CONTAMINANTS

At the local level, air pollution control or management districts may adopt and enforce ARB control measures. Under SMAQMD Rule 201 ("General Permit Requirements"), Rule 202 ("New Source Review"), Rule 207 ("Federal Operating Permit") and Rule 214 ("Federal New Source Review"), all sources that possess the potential to emit TACs are required to obtain permits from the district. Permits may be granted to these operations

if they are constructed and operated in accordance with applicable regulations, including new-source-review standards and air-toxics control measures. Additionally, under Regulation 9 ("National Emissions Standards for Hazardous Air Pollutants (NESHAPs)"), SMAQMD limits emissions and exposure of specific TACs; for example, Rule 902 ("Asbestos"), is designed to limit the emissions of asbestos into the atmosphere (SMAQMD 2016b). SMAQMD also limits emissions and public exposure to TACs through a number of district programs. SMAQMD prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors.

ODORS

Offensive odors rarely cause any physical harm. They are generally regarded as an annoyance rather than a health hazard. National and California air quality regulations do not contain any requirements for their control. However, odors can severely affect livability and quality of life and manifestations of personal reactions to odors can range from psychological to physiological.

SMAQMD developed Rule 402 to place general limitations on, "...such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or to the public, or which cause, or have a natural tendency to cause, injury or damage to business or property" (SMAQMD 2016b).

Chapter 7 of SMAQMD's *Guide to Air Quality Assessment in Sacramento County* includes guidance on identifying and mitigating potential odor impacts that could result from siting a new odor source near sensitive receptors, or siting a new sensitive receptor near an existing odor source.

SACRAMENTO COUNTY GENERAL PLAN

The goal of the Air Quality Element of the General Plan is to improve air quality to promote the public health, safety, welfare, and environmental quality of the community (Sacramento County 2011). There are 22 air quality-specific policies, including the following policies that may be applicable to the project:

Policy AQ-3. Buffers and/or other appropriate mitigation shall be established on a project-by-project basis and incorporated during review to provide for protection of sensitive receptors from sources of air pollution or odor. The CARB's "Air Quality and Land Use Handbook: A Community Health Perspective," and the AQMD's approved Protocol (Protocol for Evaluating the Location of Sensitive Land uses Adjacent to Major Roadways) shall be utilized when establishing these buffers.

Policy AQ-4. Developments which meet or exceed thresholds of significance for ozone precursor pollutants as adopted by the SMAQMD, shall be deemed to have a significant environmental impact. An Air Quality Mitigation Plan shall be submitted to the County of Sacramento prior to project approval, subject to review and recommendation as to technical adequacy by the Sacramento Metropolitan Air Quality Management District.

Significance Criteria

Per Appendix G of the CEQA Guidelines and SMAQMD's CEQA guidance (SMAQMD 2016a), air quality impacts are considered significant if the project would:

- result in construction-generated criteria air pollutant or precursor emissions that exceed SMAQMD-recommended thresholds of 85 pounds per day (lb/day) for NOX, 80 lb/day and 14.6 tons per year (tons/year) for PM10, or 82 lb/day and 15 tons/year for PM2.5. In addition, all SMAQMD-recommended Basic Construction Emission Control Practices, also known as best management practices (BMPs) shall be implemented to minimize emissions of PM10 and PM2.5; otherwise, the threshold for both PM10 and PM2.5 is 0 lb/day;

- result in a net increase in long-term regional criteria air pollutant or precursor emissions that exceed SMAQMD-recommended threshold of 65 lb/day for ROG and NOX, 80 lb/day and 14.6 tons/year for PM10, or 82 lb/day and 15 tons/year for PM2.5;

- result in long-term operational local mobile-source CO emissions that would violate or contribute substantially to concentrations that exceed the California 1-hour ambient air-quality standard of 20 parts per million (ppm) or the 8-hour standard of 9 ppm;

- result in construction-related TAC emissions that would expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in 1 million or a hazard index greater than 1.0;

- expose sensitive receptors to substantial pollutant concentrations; or

- create objectionable odors affecting a substantial number of people.

Impacts And Analysis

Methodology

Regional and local criteria air pollutant emissions and associated impacts, as well as impacts from TACs, CO concentrations, and odors, were assessed in accordance with SMAQMD-recommended methodologies. The project's emissions are compared to SMAQMD's operational thresholds because of the long-term operational nature of activities on site.

Short-term construction-generated emissions were estimated using the SMAQMD-approved California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program (SCAQMD 2016). CalEEMod is designed to model construction emissions for land use development projects using emission factors developed by ARB, and allows for the input of project-specific information. Modeling was based on project-specific information (e.g., floor surface area, area to be graded, existing parking,

prefabricated building, energy information, two employees' commute, estimated operational water and wastewater), where available; reasonable assumptions based on typical construction activities; and default values in CalEEMod that are based on the project's location and land use type. Construction of the project was assumed to take approximately one month. For a detailed description of model input and output parameters and assumptions, refer to Appendices H and I. Maximum daily operational emissions of criteria air pollutants and precursors were also estimated using CalEEMod, in accordance with SMAQMD guidance. Emissions estimates included long-term operational emissions of ozone precursors (i.e., ROG and NOX) associated with mobile-sources (i.e., trip generation). This modeling incorporated the trip generation rates identified for the project in the trip table that was provided by the Sacramento County Department of Transportation to support the analysis in Chapter 6, "Transportation and Circulation." Emissions from natural gas combustion used for heating were estimated based on the default consumption levels emission factors contained in CalEEMod.

Health risk from project-generated, construction- and operation-related emissions of TACs were assessed qualitatively. This assessment is based on the location from which construction- or operation-related TAC emissions would be generated by the proposed land uses to offsite sensitive receptors, as well as the duration during which TAC exposure would occur.

Similarly, the assessment of odor-related impacts is based on the types of odor sources associated with the land uses that would be developed and their location relative to onsite receptors as subsequent phases are built.

Impact: Result in Short-Term, Construction-Generated Emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ that Exceed SMAQMD-Recommended Thresholds

Initial project construction activities would consist of site preparation, which includes importing 50 cubic yards of gravel to be used to elevate the building pad. The project includes a 2,700 square foot prefabricated, steel building with 18 attached outdoor habitat areas ranging in size from 240 to 288 square feet (~7,800 total square feet). Since the building is prefabricated, the expected construction window is only 30 days.

Construction-related emissions would be temporary in nature and would include site preparation, grading, paving, building construction, and application of architectural coatings. Emissions of NO_X would be primarily associated with off-road (e.g., gasoline- and diesel-powered) construction equipment exhaust. Additional emission sources would include on-road trucks used to haul equipment and materials to and from the site and worker vehicles for commuting. Worker commute trips, off-gassing application of architectural coatings would be the principal sources of ROG, with additional ROG generated by off- and on-road construction equipment. Emissions of fugitive PM_{10} and $PM_{2.5}$ dust would primarily be associated with ground-disturbance activities during site preparation and grading, and may vary as a function of such parameters as soil silt content, soil moisture, wind speed, acreage of disturbance area, and vehicle miles

traveled onsite and offsite. PM_{10} and $PM_{2.5}$ are also contained in vehicle and equipment exhaust.

Construction equipment may include a backhoe, a rubber tire dozer, front-end loaders, generators, and dump trucks, which would be used during excavation for utilities and building foundations. Concrete trucks and concrete pumps would be used to pour foundations and slabs. Forklifts would be used during erection of walls and delivery of materials from storage yards. Minimal import of 50 cubic yards of gravel to elevate the building pad. An additional 25 cubic yards of decomposed granite will be placed in the outdoor habitat areas.

Construction related emissions were estimated using CalEEMod and are summarized in Table AQ-5. Refer to Appendix E for detailed modeling input parameters and results.

Table AQ-5: Summary of Construction-Generated Emissions of Criteria Air Pollutants and Precursors

Construction Year	Emissions[1]			
	ROG[3]	NO_X	PM_{10}	$PM_{2.5}$
	lb/day	lb/day	lb/day	lb/day
2019	72.58	11.75	1.31	0.93
Threshold of Significance[2]	NONE	85	85	82

Notes: lb/day = pounds per day; ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less;

[1] Emissions estimates do not account for reductions that would result from compliance with SMAQMD-recommended BMPs.

[2] If all applicable SMAQMD-recommended BMPs are not implemented, then the threshold of significance for emissions of PM_{10} and $PM_{2.5}$ is zero.

[3] SMAQMD does not have an established construction threshold of significance for ROG. ROG emissions are disclosed for informational purposes only.

Refer to Appendix E for detailed assumptions, modeling parameters, and output files.

As shown in Table AQ-5, construction-generated emissions of NO_X would not exceed the SMAQMD threshold of significance. Because construction-generated emissions of PM_{10} and $PM_{2.5}$ would not exceed the applicable adopted mass emissions thresholds adopted by SMAQMD, construction-generated emissions of PM_{10} and $PM_{2.5}$ would not contribute to a localized exceedance of the CAAQS and NAAQS for of PM_{10} and $PM_{2.5}$ or contribute to the nonattainment status of the SVAB with respect to the CAAQS for PM_{10} and the NAAQS for $PM_{2.5}$; therefore, this impact would be **less than significant**.

Impact: Result in Long-term, Operational Emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$ that Exceed SMAQMD-Recommended Thresholds

Once a project is completed, additional pollutants are emitted through the use, or operation, of the site. Land use development projects typically involve the following sources of emissions: motor vehicle trips generated by the land use; fuel combustion from landscape maintenance equipment; natural gas combustion emissions used for

space and water heating; evaporative emissions of ROG associated with the use of consumer products; and, evaporative emissions of ROG resulting from the application of architectural coatings.

Ultimately, a project typically must have large acreages or intense uses in order to result in significant operational air quality impacts. For ozone precursor emissions the screening table in the SMAQMD Guide allows users to screen out projects. Because this project involves a use that is not specifically listed in the SMAQMD screening table the California Emissions Estimator Model (CalEEMod) was used to model project emissions (Appendix E). Based on the unique characteristics of the proposed monkey sanctuary, PER staff consulted with SMAQMD staff regarding the appropriate land use classification and variables to use in the model.

Table AQ-6: CalEEMod Operational (long-term) Emissions

Emissions Source	Emissions			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
	lb/day	lb/day	lb/day	lb/day
Area Source	<1	<1	<1	<1
Natural Gas Combustion	<1	<1	<1	<1
Mobile Source (Vehicle Trips)	<1	<1	<1	<1
Total	**0.39**	**1.06**	**0.69**	**0.20**
Threshold of Significance[2]	NA	65	85	82

Notes: lb/day = pounds per day; ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less;

Refer to Appendix E for detailed assumptions and modeling output files.

As shown Table AQ-6, the operational emissions would not exceed SMAQMD-adopted daily or annual mass emission thresholds for ROG (precursor to ozone), NOX, and PM10 and PM2.5. Therefore, operational emissions of criteria air pollutants and precursors would not contribute considerably to the nonattainment status of the SVAB with respect to the CAAQS and NAAQS for ozone, the CAAQS for PM10, or the NAAQS for PM2.5. Moreover, operational emissions of PM10 and PM2.5 would not contribute to localized concentrations of PM10 and/or PM2.5 that would exceed or contribute to an exceedance of the CAAQS or NAAQS. As a result, this impact would be ***less than significant***.

IMPACT: RESULT IN LONG-TERM, OPERATIONAL MOBILE-SOURCE CO CONCENTRATIONS THAT EXCEED AIR QUALITY STANDARDS DUE TO INCREASED TRAFFIC

Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, speed, and delay. Transport of CO is extremely limited because it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain specific meteorological conditions, CO concentrations near

roadways and/or intersections may reach unhealthy levels at nearby sensitive land uses, such as residential units, hospitals, schools, and childcare facilities. As a result, it is recommended that CO not be analyzed at the regional level, but at the local level.

Project-generated traffic would be associated with the operational phase. According to Sacramento County Department of Transportation, the project is anticipated to generate ten daily trips.

SMAQMD provides a screening methodology to determine project impacts from localized CO emissions. This screening methodology was utilized to analyze local CO emissions from the construction and operation of this project. The screening methodology has two tiers of screening criteria, as summarized below. If the first set is not met, then the second tier may be applied (SMAQMD 2016a).

First-Tier

The project would result in a less-than-significant impact to air quality for local CO if:

- Traffic generated by the project would not result in deterioration of intersection level of service (LOS) to LOS E or F; and
- The project would not contribute additional traffic to an intersection that already operates at LOS of E or F.

Second-Tier

If a project does not comply with the first-tier criteria, but all of the following criteria are met, the project would result in a less-than-significant impact to air quality for local CO.

- The project would not result in an affected intersection experiencing more than 31,600 vehicles per hour;
- The project would not contribute traffic to a tunnel, parking garage, bridge underpass, urban street canyon, or below-grade roadway; or other locations where horizontal or vertical mixing of air will be substantially limited; and
- The mix of vehicle types at the intersection would not anticipated to be substantially different from the County average (as identified by the EMFAC or CalEEMod models).

Ten daily trips would not result in, or substantially contribute to, concentrations that exceed the 1-hour or 8-hour CAAQS and NAAQS for CO. As a result, this impact would be ***less than significant***.

Impact: Expose Sensitive Receptors to TACs

The exposure of sensitive receptors (e.g., existing and future offsite residents) to TAC emissions from project-generated construction and operational sources, as well as

exposure of the new residential receptors proposed by the project, are discussed separately below.

Short-Term Construction-Related TAC Emissions

Construction-related activities would result in temporary, short-term project-generated emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing and grading); paving; application of architectural coatings; and other miscellaneous activities.

Particulate exhaust emissions from diesel-fueled engines (i.e., diesel PM) were identified as a TAC by the ARB in 1998. The potential cancer risk from the inhalation of diesel PM outweighs the potential for all other health impacts (ARB 2003). Acute and chronic exposure to non-carcinogens is expressed as a hazard index, which is the ratio of expected exposure levels to an acceptable reference exposure levels. Based on the construction emission estimates presented in Table AQ-5 above, maximum daily exhaust emissions of PM_{10}, considered a surrogate for diesel PM, could reach up to 1.31 lb/day during construction.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), HRAs, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2012:11-3). Consequently, it is important to consider that the use of off-road heavy-duty diesel equipment would be limited to the construction period, with peak activity occurring for approximately one year. Also, studies show that diesel PM is highly dispersive (e.g., decrease of 70 percent at 500 feet from the source) (Zhu et al. 2002).

Therefore, considering the highly dispersive properties of diesel PM, the low mass of diesel PM emissions that would be generated during project construction, and the relatively short duration of construction activities, construction-related TAC emissions would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in 1 million or a hazard index greater than 1.0.

Long-Term Operational TAC Emissions

The project would not include the long-term operation of sources of diesel PM, except for occasional waste collection services, which is typical in residential areas. The project also would not include any land uses that would harbor large, backup diesel generators; therefore, operation of the project would not expose the existing nearby residential receptors to TAC concentrations atypical of single-family home neighborhoods.

Exposure of the Proposed Project to TAC Emissions

The proposed land use that would be developed by the project would not be considered sensitive receptors in the context of TAC emissions. The project site is not located in close proximity to permitted stationary sources of TACs. It's also not located within 500 feet of a freeway or high-volume roadway, which is the setback distance recommended in ARB and beyond which substantial exposure to TACs is not anticipated (ARB 2005:4).

Summary

Project-related construction would not expose nearby sensitive receptors to an incremental increase in cancer risk that exceeds 10 in 1 million or a hazard index greater than 1.0, the project would not introduce new stationary sources of TACs, and the project would not be developed in a location where future residents would be exposed to relatively high concentrations of TACs from offsite emission sources. For these reasons, this impact would be ***less than significant***.

Impact: Expose Sensitive Receptors to Odors

The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose a substantial number of members of the public to objectionable odors would be deemed to have a significant impact.

The facility proposes to have up to 51 squirrel monkeys initially; however, the facility is designed to allow for a maximum of 55 monkeys. An evaluation on the amount of urine and waste produced by the proposed facility as compared to humans and livestock such as horses was conducted. As shown in Table AQ-7, the proposed squirrel monkey sanctuary with 51 monkeys will produce significantly less waste than a single adult horse and about the same amount of urine as two adult humans and as much feces as three adult humans (at maximum capacity the change in waste output is negligible).

Table AQ-7: Comparison of Waste Outputs

	Estimated daily urine output (gal)	Estimated daily feces output (lb)
51 squirrel monkeys (value is total)	0.6	0.8
One adult human	0.4	0.3
One adult horse (1,000 lb)	2.4	37.0

The applicant has developed an odor control program to ensure that odors are minimized and will not result in a public nuisance. The plan includes the following:

- Absorbent bedding (e.g. wood shavings) would be used indoors on the cement floor of each cage to trap and deodorize feces and urine. Soiled bedding would be removed daily and all bedding would be removed weekly and refreshed after cages are sanitized.

- Indoor caging, floors, and walls would be cleaned and deodorized weekly with a sanitizing solution (e.g. Rescue).

- Outdoor habitats would be mulched and soiled areas cleaned and refreshed twice weekly.

- Aisles in the building would be swept and mopped daily with 1:32 bleach solution to keep area clean and prevent odors.

- Soiled bedding/mulch and animal waste would be put in heavy-duty plastic bags and disposed of in a commercial waste bin that has a heavy securable cover to prevent animal entry and odor escape. The bin will be stored next to the monkey housing area and will be picked up weekly by Cal-Waste Recover of Galt. Cal-waste has confirmed that they will schedule weekly pick-up to coordinate with building cleaning days such that waste will be picked-up within 24 hours of weekly cleaning days. No special handling of the waste is required.

- All effluent from the facility would be directed to the dedicated septic system for the facility.

Based on the small amount of urine and waste that will be produced by the monkeys at the facility along with implementation of the odor control plan potential impacts associated with Odor are considered ***less than significant.***

Mitigation Measures

None required.

8 NOISE

Introduction

This chapter summarizes the fundamentals of acoustic analysis, existing receptors and ambient noise, applicable regulations, and the noise impact analysis conducted for the proposed project.

Setting

The project site is located in a rural, agricultural-residential area of unincorporated Sacramento County. The project site is located on a 5-acre parcel that is currently developed with a single-family residence and accessory structures. All adjacent parcels, with the exception of the east bounding parcel, have similar land use and zoning designations as the subject parcel; these properties are developed with single-family residences and accessory structures. The parcel to the east is zoned Agricultural – 20 Acres (AG-20), has a General Agricultural 20 acres (GA-20) land use designation, and is in agricultural production.

Existing noise in the area is generated by residential traffic, farm animals, and agricultural operations. Sensitive receivers to the proposed projects include surrounding single-family residents.

Fundamentals of Acoustics

Acoustics is the scientific study that evaluates perception, propagation, absorption, and reflection of sound waves. Sound is a mechanical form of radiant energy, transmitted by a pressure wave through a solid, liquid, or gaseous medium. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise. Noise is typically expressed in “decibels” (dB), which is a common measurement of sound energy. Common sources of environmental noise and noise levels are presented in

Table NO-1.

Table NO-1: Typical Noise Levels

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet	100	
Gas lawnmower at 3 feet	90	
Diesel truck moving at 50 mph at 50 feet	80	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, Gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	60	
Quiet urban daytime	50	Large business office, Dishwasher in next room
Quiet urban nighttime	40	Theater, Large conference room (background)
Quiet suburban nighttime	30	Library, Bedroom at night, Concert hall (background)
Quiet rural nighttime	20	Broadcast/Recording Studio
	10	
Threshold of Human Hearing	0	Threshold of Human Hearing

Notes: dB= decibels; mph=miles per hour

Source: California Department of Transportation (Caltrans) 2013a.

SOUND PROPERTIES

A sound wave is initiated in a medium by a vibrating object (e.g., vocal chords, the string of a guitar, the diaphragm of a radio speaker). The wave consists of minute variations in pressure, oscillating above and below the ambient atmospheric pressure. The number of pressure variation cycles occurring per second is referred to as the frequency of the sound wave and is expressed in hertz.

Directly measuring sound pressure fluctuations would require the use of a very large and cumbersome range of numbers. To avoid this and have a more useable numbering system, the dB scale was introduced. A sound level expressed in decibels is the logarithmic ratio of two like pressure quantities, with one pressure quantity being a reference sound pressure. For sound pressure in air the standard reference quantity is generally considered to be 20 micropascals, which directly corresponds to the threshold

of human hearing. The use of the decibel is a convenient way to handle the million-fold range of sound pressures to which the human ear is sensitive. A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly summed. For example, a 65 dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a 100-fold increase in acoustical energy.

The loudness of sound perceived by the human ear depends primarily on the overall sound pressure level and frequency content of the sound source. The human ear is not equally sensitive to loudness at all frequencies in the audible spectrum. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed. The standard weighting networks are identified as A through E. There is a strong correlation between the way humans perceive sound and A-weighted sound levels (dBA). For this reason, the dBA can be used to predict community response to noise from the environment, including noise from transportation and stationary sources. All sound levels expressed as dB in this chapter are A-weighted sound levels, unless noted otherwise.

Noise can be generated by a number of sources, including mobile sources (i.e., transportation) such as automobiles, trucks, and airplanes and stationary sources (i.e., non-transportation) such as construction sites, machinery, and commercial and industrial operations. As acoustic energy spreads through the atmosphere from the source to the receiver, noise levels attenuate (i.e., decrease) depending on ground absorption characteristics, atmospheric conditions, and the presence of physical barriers. Noise generated from mobile sources generally attenuate at a rate of 4.5 dB per doubling of distance. Stationary noise sources spread with more spherical dispersion patterns that generally attenuate at a rate of 6 to 7.5 dB per doubling of distance.

All buildings provide some exterior-to-interior noise reduction. A building constructed with a wood frame and a stucco or wood sheathing exterior typically provides a minimum exterior-to-interior noise reduction of 24 dB with its windows closed (U.S. Environmental Protection Agency [EPA] 1978). Buildings constructed of a steel or concrete frame, a curtain wall or masonry exterior wall, and fixed plate glass windows of 0.25-inch thickness provide an exterior-to-interior noise reduction greater than that of wood frame and a stucco or wood sheathing exterior.

COMMON NOISE TERMINOLOGY

The intensity of environmental noise fluctuates over time, and several different descriptors of time-averaged noise levels are used. The selection of a proper noise descriptor for a specific source depends on the spatial and temporal distribution, duration, and fluctuation of both the noise source and the environment. The noise descriptors most often used in relation to the environment are defined below (Caltrans 2013a).

Equivalent Noise Level (L_{eq}): The equivalent steady-state noise level in a specified period of time that would contain the same acoustic energy as the time-varying noise level during the same period (i.e., average noise level). Because it represents average noise energy, the same L_{eq} value could represent a relatively stable sound source, or a highly variable sound environment.

Minimum Noise Level (L_{min}): The lowest instantaneous noise level during a specified time period.

Maximum Noise Level (L_{max}): The highest instantaneous noise level during a specified time period.

Day-Night Noise Level (L_{dn}): The 24-hour L_{eq} with a 10-dB penalty applied to sounds occurring during the noise-sensitive hours from 10 p.m. to 7 a.m., which are typically reserved for sleeping. The L_{dn} and CNEL (defined below) are the most common noise descriptors used for transportation noise considerations or other noise sources that may occur both during daytime and more noise-sensitive nighttime (during typical relaxation and sleep) hours.

Community Noise Equivalent Level (CNEL): Similar to the L_{dn} described above with an additional 5-dB penalty applied during the noise-sensitive hours from 7 p.m. to 10 p.m., which are typically reserved for relaxation, conversation, reading, and watching television.

EFFECTS OF NOISE ON HUMANS

Excessive and chronic exposure to elevated noise levels can result in auditory and non-auditory effects on humans. Auditory effects of noise on people are those related to temporary or permanent hearing loss caused by loud noises. Non-auditory effects of exposure to elevated noise levels are those related to behavioral and physiological effects. The non-auditory behavioral effects of noise on humans are associated primarily with the subjective effects of annoyance, nuisance, and dissatisfaction, which lead to interference with activities such as communications, sleep, and learning. The non-auditory physiological health effects of noise on humans have been the subject of considerable research attempting to discover correlations between exposure to elevated noise levels and health problems, such as hypertension and cardiovascular disease. The mass of research infers that noise-related health issues are predominantly the result of behavioral stressors and not a direct noise-induced response. The extent to which noise contributes to non-auditory health effects remains a subject of considerable research, with no definitive conclusions.

The degree to which noise results in annoyance and interference is highly subjective and may be influenced by several non-acoustic factors. The number and effect of these non-acoustic environmental and physical factors vary depending on individual characteristics of the noise environment such as sensitivity, level of activity, location, time of day, and length of exposure. One key aspect in the prediction of human response to new noise environments is the individual level of adaptation to an existing noise environment. The greater the change in the noise levels that are attributed to a

new noise source, relative to the environment an individual has become accustom to, the less tolerable the new noise source will be perceived.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000 to 8,000 hertz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a readily noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness. Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely perceptible (Caltrans 2013a:2-45).

Negative effects of noise exposure include physical damage to the human auditory system, interference, and disease. Exposure to noise may result in physical damage to the auditory system, which may lead to gradual or traumatic hearing loss. Gradual hearing loss is caused by sustained exposure to moderately high noise levels over a period of time; traumatic hearing loss is caused by sudden exposure to extremely high noise levels over a short period. Gradual and traumatic hearing loss both may result in permanent hearing damage. In addition, noise may interfere with or interrupt sleep, relaxation, recreation, and communication. Although most interference may be classified as annoying, the inability to hear a warning signal may be considered dangerous. Noise may also be a contributor to diseases associated with stress, such as hypertension, anxiety, and heart disease. The degree to which noise contributes to such diseases depends on the frequency, bandwidth, and level of the noise, and the exposure time.

Regulatory Setting

Federal

The Federal Noise Control Act of 1972

The basic motivating legislation for noise control in the United States was provided by the Federal Noise Control Act (1972), which addressed the issue of noise as a threat to human health and welfare, particularly in urban areas.

State

California State Building Code Title 24

State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, California Building Code. Title 24 is applied to new construction in California and states that interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. An acoustical analysis documenting compliance with the interior sound

level standards shall be prepared for structures containing habitable rooms within the CNEL noise contours of 60-dB or greater.

LOCAL

SACRAMENTO COUNTY GENERAL PLAN

Policy NO-5. The interior and exterior noise level standards for noise-sensitive areas of new uses affected by existing non-transportation noise sources in Sacramento County are shown by Table NO-2. Where the noise level standards of Table NO-2 are predicted to be exceeded at a proposed noise-sensitive area due to existing non-transportation noise sources, appropriate noise mitigation measures shall be included in the project design County of Sacramento General Plan 11 Noise Element Amended December 13, 2017 to reduce projected noise levels to a state of compliance with the Table NO-2 standards within sensitive areas.

Policy NO-6. Where a project would consist of or include non-transportation noise sources, the noise generation of those sources shall be mitigated so as not exceed the interior and exterior noise level standards of Table NO-2 at existing noise-sensitive areas in the project vicinity

Policy NO-8. Noise associated with construction activities shall adhere to the County Code requirements. Specifically, Section 6.68.090(e) addresses construction noise within the County.

Table NO-2: Non-Transportation Noise Standards from the Sacramento County General Plan

Receiving Land Use	Outdoor Area (Median [L_{50}]/Maximum [L_{max}][1,2]		Interior[3]
	Daytime	Nighttime	Day/Night
All Residential	55/75	50/70	35/55
Transient Lodging[4]	55/75	-	35/55
Hospitals & Nursing Homes[5,6]	55/75	-	35/55
Theaters & Auditoriums[6]	-	-	30/50
Churches, Meeting Halls, Schools, Libraries, etc.[6]	55/75	-	35/60
Office Buildings[6]	60/75	-	45/65
Commercial Buildings[6]	-	-	45/65
Playgrounds, Parks, etc.[6]	65/75	-	-
Industry[6]	60/80	-	50/70

Notes: L_{50} = noise level that is exceeded 50% of a given period; L_{max}= the maximum instantaneous noise level

1 Standards in this table shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards of this table, then the noise level standards shall be increased at 5 dB increments to encompass the ambient. Where median (L_{50}) noise level data is not available for a particular noise source, average (L_{eq}) values may be substituted for the standards of this table provided the noise source in question operates for at least 30 minutes of an hour. If the source in question operates less than 30 minutes per hour, then the maximum noise level standards shown would apply.

2 The primary outdoor activity area associated with any given land use at which noise-sensitivity exists and the location at which the County's exterior noise

level standards are applied.

[3] The primary outdoor activity area associated with any given land use at which noise-sensitivity exists and the location at which the County's exterior noise level standards are applied.

[4] Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours.

[5] Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.

[6] Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.

Source: Sacramento County 2011

Sacramento County Noise Control Ordinance

Section 6.68.070 of the Sacramento County Code contains exterior noise standards for specific zoning districts. The project is currently zoned AR-5 (5-acre minimum lots). The lots adjacent to the project site in the County are all zoned for agricultural-residential with between 1-acre minimum lots to 10-acre minimum lots. The exterior noise standards for the zoning districts detailed above is 55 dB between 7 a.m. and 10 p.m. and 50 dB between 10 p.m. and 7 a.m. (please reference Table NO-3)

Table NO-3: Sacramento County Exterior Noise Standards

Cumulative Period of Time (minutes per hour)	Daytime 7:00 a.m. to 10:00 p.m.	Nighttime 10:00 p.m. to 7:00 a.m.
30	55	50
15	60	55
5	65	60
1	70	65
0	75	70

Note: A cumulative duration of 30 minutes in an hour is equivalent to the L_{50} for that hour. Likewise, a cumulative duration of 15 minutes in an hour is equivalent to the L_{25}, a cumulative duration of 5 minutes in an hour is equivalent to the $L_{8.3}$, and a cumulative duration of 1 minute in an hour is equivalent to the $L_{1.6}$. The noise level not to be exceeded at all in a given hour represents the maximum noise level or L_{max}.

SOURCE: Sacramento County, 1987.

Significance Criteria

Based on Appendix G of the State CEQA Guidelines, the project would have a significant noise impact if it would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- Exposure of persons to or generation of excessive groundborne vibration or groundborne or noise levels?

- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

ISSUES NOT DISCUSSED FURTHER

The closest airport to the project site is Lucchetti Ranch Aiport, which is located approximately nine miles to the north. The project would not expose people working in the project area to excessive noise levels from air traffic.

IMPACTS AND ANALYSIS

IMPACT: RESULT IN SUBSTANTIAL CONSTRUCTION-GENERATED NOISE

Section 6.68.090 of the Sacramento County Code provides the following exemption to the exterior noise standards:

Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided said activities do not take place between the hours of 8 p.m. and 6 a.m. on weekdays and Friday commencing at 8 p.m. through and including 7 a.m. on Saturday; Saturdays commencing at 8 p.m. through and including 7 a.m. on the next following Sunday and on each Sunday after the hour of 8 p.m. However, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 8 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner.

Construction noise levels in the vicinity of the project site would fluctuate depending on the particular type, number, and duration of usage for the varying equipment. The effects of construction noise largely depends on the type of construction activities occurring on any given day, noise levels generated by those activities, distances to noise-sensitive receptors, and the existing ambient noise environment in the receptor's vicinity. Construction generally occurs in several discrete stages with varying equipment type, quantity, and intensity. These variations in the operational characteristics of the

equipment change the effect they have on the noise environment of the project site and on the surrounding community for the duration of the construction process.

Construction is expected to begin in Spring 2019. The project does not involve any demolition activities. Since the project site is relatively flat grading would be minimal, if needed. Limited site preparation would involve grubbing/removal of vegetation, the placement of 1,365 cubic feet of gravel and 700 cubic feet of decomposed granite, pouring of concrete pad. The proposed structure is prefabricated, which drastically shortens the construction timeline.

Based on the types of construction activities associated with the project (e.g. hauling, concrete mixing, concrete pours, clearing/grubbing, structure erection) it is expected that the primary sources of noise would be from forklifts, tractors, compressors, pumps, and various trucks (job trucks, concrete trucks, hauling trucks). Reference noise levels of these types of construction equipment are shown in Table NO-4.

Table NO-4: Typical Noise Levels from Construction Equipment

Equipment Type	Typical Noise Level (dB) at 50 feet
Aerial Lifts	85
Air Compressors	80
Concrete Saws	90
Excavators	85
Generator Sets	82
Graders	85
Pavers	85
Plate Compactors	80
Pumps	77
Rollers	85
Dozers	85
Scrapers	85
Tractors/Loaders/Backhoes	80–84
Trucks	74–88

Notes: Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment.

Source: FTA 2006

Noise-sensitive receptors near the construction site would experience elevated noise levels from construction activities. The closest off-site receptors to the project-related construction activities would be the neighboring residential land uses. These receptors would be exposed to the highest levels of construction noise during grubbing and grading activities. Grading and grubbing tend to involve the operation of scrapers and/or

dozers moving about at a steady speed; however, it should be noted that the site preparation is limited and grading may not be necessary.

Noise-generating construction activity would occur between 7:00 a.m. and 7:00 p.m., Monday through Friday. The Sacramento County Code (Section 6.68.090) exempts construction-related noise, provided that construction activity does not occur between 8:00 p.m. and 6:00 a.m. on weekdays. Additionally, no pile driving or blasting would occur during construction. Therefore, construction would not result in the exposure of persons to, or generation of, noise levels in excess of applicable standards. This impact would be ***less than significant***.

Impact: Result in Construction-Generated Ground Vibration at Nearby Sensitive Land Uses

Construction activities generate varying degrees of ground vibration, depending on the specific construction equipment used and activities involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and high levels of vibration can cause sleep disturbance in places where people normally sleep or annoyance in buildings that are primarily used for daytime functions and sleeping.

As described in above, proposed construction activities would may require on-site heavy-duty construction equipment for grubbing and possibly grading. Table NO-5 shows the maximum ground vibration levels generated by the types of equipment (and activities) that would be used during construction of the project. Construction-related ground vibration is normally associated with impact equipment such as pile drivers, blasting, and the operation of some heavy-duty construction equipment, such as dozers and trucks; however, no pile driving or blasting would be performed during project construction.

Table NO-5: Representative Ground Vibration and Noise Levels for Construction Equipment

Equipment	PPV at 25 feet (in/sec)[1]	Approximate L_v (VdB) at 25 feet[2]
Large Dozer	0.089	87
Loaded Trucks	0.076	86
Small Dozer	0.003	58

Notes: PPV = peak particle velocity; L_V = the root mean square velocity expressed in vibration decibels (VdB), assuming a crest factor of 4

Source: FTA 2006

As shown in Table NO-5, the maximum ground vibration level generated by a large dozer is 0.089 in/sec PPV and 87 VdB at 25 feet. The use of a large dozer would not exceed the Caltrans recommended level of 0.2 in/sec PPV with respect to structural

damage, as the noted vibration level at 25 feet is substantially below 0.2 in/sec PPV. Further, multiple dozers are generally not used in close proximity for safety reasons. No structures are located within 25 feet of the project site boundary; therefore, the exposure at the closest buildings from a large dozer would be less than the Caltrans recommended level of 0.2 in/sec PPV.

With respect to human disturbance, the use of a large dozer would exceed the Federal Transportation Agency's maximum acceptable level of 80 VdB within 40 feet of dozing activity. The existing structure nearest to where construction would occur is beyond 40 feet from the project site boundary. Thus, construction activities performed by dozers would not occur within 40 feet of existing structures and therefore, vibration levels would not exceed the Federal Transportation Agency's maximum acceptable level for human annoyance of 80 VdB; therefore, construction that would occur on project site would not result in the exposure of any sensitive receptors or structure to excessive vibration levels. This impact would be ***less than significant***.

Impact: Substantial Increase (Temporary, Periodic, or Permanent) in Ambient Noise Levels

The existing noise environment in the project vicinity is defined by noise sources typical in a rural setting. Noise sources contributing to measured ambient noise levels consisted of wind blowing through grass, wildlife, insects, birds, and intermittent traffic on North Valensin Road. To quantify existing background noise levels in the project vicinity, long-term ambient noise level measurements were conducted on the project site from Saturday, July 8 through Monday, July 10, 2017, by Bollard Acoustical Consultants, Inc. Ambient noise level monitoring was conducted along the southern property line (reference Plate NO-1). Table NO-6 summarizes the measured ambient noise levels (please reference Appendix D for the complete Noise Study).

Table NO-6: Measured Ambient Noise Level Summary

		Measured Noise Levels (dBA)			
		Daytime (7 AM to 10 PM)		Nighttime (7 AM to 10 PM)	
Site[1]	Date	L_{50}	L_{max}	L_{50}	L_{max}
1	Saturday, July 8, 2017	44	58	58	62
	Sunday, July 9, 2017	45	60	57	62
	Monday, July 10, 2017	45	57	55	65
	Average:	45	58	57	63
Sacramento County Standards (Table 1):		55	75	50	70

Notes:
1. Ambient noise level monitoring was conducted along the southern property line. Location is shown on Figure 1.

Plate NO-1: Noise-Sensitive Locations and Ambient Noise Measurement Location

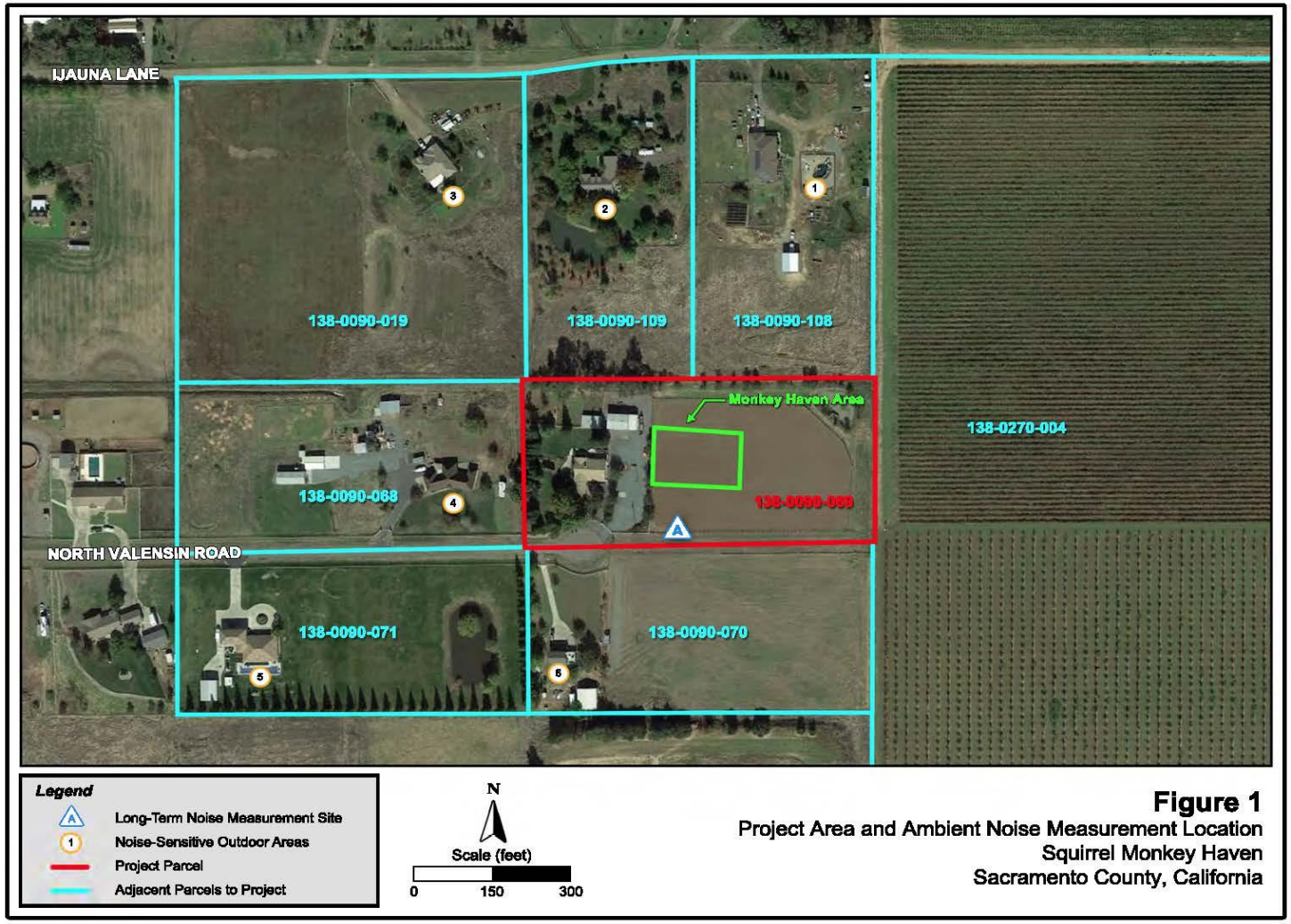


Figure 1
Project Area and Ambient Noise Measurement Location
Squirrel Monkey Haven
Sacramento County, California

Table NO-6 data indicate that existing ambient noise levels in the project vicinity were consistent from day-to-day and night-to-night. The measured ambient data from the three-day monitoring period was averaged to determine the baseline noise level condition in the project vicinity. The calculated daytime and nighttime median noise levels were 45 dB and 57 dB, while daytime and nighttime maximum noise levels were 58 dB and 63 dB. The elevated nighttime noise levels are believed to be attributable to the presence of increased insect activity during the nighttime hours.

The project parcel and surrounding parcels are large lot agriculturally zoned parcels containing single-family residences. The monkeys sleep pattern is diurnal like humans, awake during daytime hours and asleep during nighttime hours. Furthermore, the monkeys would be indoors within the proposed agricultural building during nighttime hours. Because noise-generation from the monkeys is not anticipated during nighttime hours, only the Sacramento County General Plan daytime (7 a.m. to 10 p.m.) noise level standards would be applicable to the project.

The primary noise source associated with this facility would be the vocalizations of the monkeys. The project applicant has indicated that the population of 51 monkeys will consist of 35 females and 16 males. The males are not heard vocalizing very often. If they do it is either a happy twitter at feeding time or a brief cackle to threaten a neighboring male. The females chit chat a lot throughout the day. The conversational chit chat (e.g., purrs, chirps, chucks) occur between monkeys when they are close to each another. According to the project applicant, these types of vocalizations are similar in sound level to average human conversation. Other vocalizations, which are the loudest, are given in reaction to specific events that are scary (alarm call yap) or annoying (cackle, shrieks). About 3-5 episodes of social drama occur daily that involve shrieking. These episodes are momentary and last about 30-60 seconds. Squirrel monkeys vocalize for specific reasons and do not vocalize impulsively or repetitively like dogs barking at strangers, out of boredom, or to protect territory.

According to footnote 7 of Table NO-3, the median (L_{50}) noise level standards are applicable to noise sources present in excess of 30 minutes out of the hour while the maximum (L_{max}) noise level standards are applicable to noise sources present less than 30 minutes out of the hour. It is our understanding that most of the vocalizations from monkeys throughout the day are “conversational chit-chat” with limited episodes of shrieking, occurring approximately 3-5 times per day. Because the conversational chit-chat could potentially occur in excess of 30 minutes out of an hour, it would be subject to the median (L_{50}) noise level standard of 55 dB. Because the shrieking would only occur on limited occasions, it would be subject to the maximum (L_{max}) noise level standard of 75 dB.

The journal article published by the Acoustical Society of America titled, “Responses of Squirrel Monkeys to their Experimentally Modified Mobbing Calls,” by Claudia Fichtel and Kurt Hammerschmidt (May 2003), provides reference noise levels for squirrel monkey vocalizations. Specifically, the article provides reference noise levels for the alarm call yap. The yap, according to the article, serves to inform members of the same

species about the presence of a mammalian predator and is often uttered in a chorus as a mobbing reaction. The maximum squirrel monkey yap noise levels were measured to be 76 dB ± 5 dB at a distance of 3 feet. Therefore, the worst- case maximum noise levels of for yaps documented in the journal article were 81 dB at 3 feet. As indicated previously, the loudest types of monkey vocalizations are alarm call yaps, cackles and shrieks. The project applicant has indicated that the shrieks are the loudest of the three vocalizations but not by a wide margin. In order to conservatively assess maximum noise levels associated with shrieks, 5 dB was added to the documented worst-case yap noise levels of 81 dB at 3 feet, resulting in reference maximum noise level of 86 dB at 3 feet. Median monkey vocalizations (twitters) were conservatively assumed to be 15 dB quieter than maximum yap noise levels, resulting in a reference noise level of 66 dB at 3 feet. Average male human conversation in a raised voice is approximately 65 dB at 3 feet, providing good agreement with the applicants' subjective similarity of the monkey twitter to human conversation. To provide a conservative assessment of median squirrel monkey noise generation (twitters) at the proposed facility, half (18) of the females were assumed to vocalizing simultaneously for the duration of an hour, resulting in a reference median noise level of 79 dB at 3 feet.

The reference noise levels discussed in the preceding paragraphs were projected to the nearest identified outdoor activity areas assuming normal spherical spreading of sound (6 dB decrease per doubling of distance from the noise source). Table NO-7 shows the predicted median and maximum noise levels at each of the six nearest residential outdoor activity areas to the proposed shelter for worst-case squirrel monkey vocalization noise generation.

Table NO-7: Predicted Squirrel Monkey Noise Levels at Neighboring Parcels

Predicted Squirrel Monkey Noise Levels at Nearest Outdoor Activity Areas				
			Predicted Noise Levels (dBA)	
Residence[1]	APN	Distance (feet)[2]	L_{50}	L_{max}
1	138-0090-108	520	34	41
2	138-0090-109	480	34	42
3	138-0090-019	640	32	39
4	138-0090-068	400	36	44
5	138-0090-071	840	30	37
6	138-0090-070	430	35	43
Sacramento County Daytime Standards:			**55**	**75**

Notes:

1. Nearest residential outdoor activity areas are illustrated on Figure 1.
2. Distances were scaled from the center of the nearest outdoor habitat area to nearest residential outdoor activity areas.

Table NO-7 indicates that predicted worst-case squirrel monkey noise levels generated by the proposed project would be satisfactory relative to the County's noise standards.

Furthermore, predicted noise levels would be below measured ambient noise levels presented in Table NO-6.

Predicted Noise Levels at Nearest Property Lines

Although the Sacramento County's noise level standards are applied at residential outdoor activity areas, monkey vocalization noise levels were also conservatively predicted at the nearest project property lines. The same methodology described in the previous section was utilized to predict monkey vocalization noise levels at the property lines. Those results are presented in Table NO-8.

Table NO-8: Noise Levels at Nearest Property Lines

Squirrel Monkey Haven – Sacramento County, California				
			Predicted Noise Levels (dBA)	
Direction	APN	Distance (feet)[1]	L_{50}	L_{max}
North	138-0090-109	110	47	55
East	138-0270-004	265	40	47
South	138-0090-070	135	45	53
West	138-0090-068	265	40	47
Sacramento County Daytime Standards:			**55**	**75**

Notes:
1. Distances were scaled from the nearest outdoor habitat area to the nearest property lines.

Table NO-8 indicates that predicted worst-case squirrel monkey noise levels generated by the proposed project would be satisfactory relative to the County's noise standards, even if they were assessed at the nearest project property lines rather than outdoor activity areas. Furthermore, predicted property line noise levels would be below the measured ambient noise levels presented in Table NO-6.

Single Event Analysis

Sound Exposure Level (SEL) represents the entire sound energy of a given single-event normalized into a one-second period regardless of event duration. According to the project applicant, about 3-5 episodes of social drama occur daily that involve shrieking with each episode lasting about 30-60 seconds. Given maximum shrieking noise levels of 86 dB at 3 feet and 60 seconds of continuous shrieking, the SEL for worst-case squirrel monkey vocalizations was calculated to be 104 dB at a distance of 3 feet.

Table NO-9 shows the predicted interior SEL at each of the six nearest residences. The analysis assumes a building façade transmission loss of 15 dB and 25 dB for bedroom windows in the open and closed positions, respectively.

Table NO-9: Estimated Noise Levels at Nearest Neighboring Bedrooms

Squirrel Monkey Haven – Sacramento County, California				
			Predicted SEL (dBA)[3]	
Residence[1]	APN	Distance (feet)[2]	Windows Open[4]	Windows Closed[5]
1	138-0090-108	510	44	34
2	138-0090-109	500	44	34
3	138-0090-019	670	42	32
4	138-0090-068	350	47	37
5	138-0090-071	810	40	30
6	138-0090-070	400	46	36
Recommended Interior SEL Standard[6]:			**55**	**55**

Notes:

1. Nearest residences are illustrated on Figure 1.
2. Distances were scaled from the center of the nearest outdoor habitat area to nearest residential facade.
3. SEL = Sound Exposure Level
4. Predicted noise levels were adjusted by -15 dB to account for the transmission loss provided by the residential building facades with the bedroom windows in the open position.
5. Predicted noise levels were adjusted by -25 dB to account for the transmission loss provided by the residential building facades with the bedroom windows in the closed position.
6. No universal SEL criterion has been developed for environmental noise assessments. The Sacramento County General Plan does not contain an SEL standard.

Table NO-9 indicates that worst-case squirrel monkey sound exposure levels are predicted to be well below the recommended interior SEL standard of 55 dB. No further consideration of noise mitigation measures would be warranted for the project relative to the recommended interior SEL standard of 55 dB.

Comparison of Proposed Project Relative to Typical Dog Kennel

Due to the unique nature of this project, estimated noise generated by the squirrel monkeys was compared to the noise generation of a typical dog kennel operation. The primary noise source associated with a typical outdoor dog kennel is periodic dog barking. Bollard has considerable experience in preparing noise studies for dog boarding facilities and, even under the most ideal boarding conditions with highly trained supervision, dogs occasionally still bark. Usually barking occurs in response to some stimuli, such as persons or other dogs entering the kennel area. The degree of barking depends largely on the experience of the staff and the level of stimuli the dogs receive.

To quantify noise levels associated with a typical outdoor dog kennel, Bollard averaged data collected at the All Pets Boarding (Loomis), Sacramento SPCA, and Nadelhaus Kennels (Chico). The results of the barking dog noise measurements indicate that at a

distance of approximately 200 feet from the dogs, the maximum noise level generated by the barking dogs was approximately 55 dB L_{max}. The average noise level measured at 200 feet with approximately 30-40 dogs barking intermittently was 50 dB L_{eq}. Because the county's standards are in terms of the median noise level descriptor, and not average (L_{eq}), median barking dog noise levels were conservatively assumed to be 50 dB L_{50}. At the Nadelhaus Kennels, median noise levels were approximately 5 dB lower than average noise levels, therefore the assumed median noise level of 50 dB L_{50} for this comparative analysis would be considered conservative. Table NO-10 shows the predicted squirrel monkey vocalization and barking dog noise levels at the outdoor activity areas of the six nearest residences.

Table NO-10: Comparison of Predicted Squirrel Monkey Noise Levels to Typical Dog Kennel

Squirrel Monkey Haven – Sacramento County, California						
			Predicted Noise Levels (dBA)			
			Squirrel Monkeys		Dogs Barking	
Residence[1]	APN	Distance (feet)[2]	L_{50}	L_{max}	L_{50}	L_{max}
1	138-0090-108	520	34	41	42	47
2	138-0090-109	480	34	42	42	47
3	138-0090-019	640	32	39	40	45
4	138-0090-068	400	36	44	44	49
5	138-0090-071	840	30	37	38	43
6	138-0090-070	430	35	43	43	48

Notes:

1. Nearest residential outdoor activity areas are illustrated on Figure 1.
2. Distances were scaled from the center of the nearest outdoor habitat area to nearest residential outdoor activity areas.

As indicated above in Table 6, predicted median noise levels due to barking dogs are approximately 8 dB higher than squirrel monkey vocalizations. Predicted maximum barking dog noise levels are approximately 6 dB higher than maximum squirrel monkey vocalization noise levels.

The low density rural character of the community generally provides a suitable environmental setting in which kennels would be compatible. According to the project applicant, the kennel will be closed-up at night between 8 p.m. and 7 a.m. weekdays and 8 p.m. and 9 a.m. weekends and holidays; therefore limiting the potential for nighttime noise disturbance. The location of the kennel from sensitive receptors along with the typical noise level produced by this species of monkey reduces any anticipated noise impact to ***less than significant***.

Mitigation Measures

None required.

9 CULTURAL RESOURCES

INTRODUCTION

This chapter analyzes and evaluates the potential impacts of the project on known and unknown cultural resources, and on unknown fossil deposits of paleontological importance. Cultural resources include historic buildings and structures, historic districts, historic sites, culturally sacred sites, prehistoric and historic archaeological sites, and other prehistoric and historic objects and artifacts. Paleontological resources (i.e., fossils) include the remains of plant and animal life and, unlike cultural resources, are exclusive of human remains and artifacts.

The following is based largely on the information and evaluation presented in a report entitled, *Cultural Resources Inventory Squirrel Monkey Haven Project, Sacramento County, California* prepared by John W. Dougherty of PAR Environmental Services Inc. This report details the results of a records search conducted by the North Central Information Center (NCIC), California Historical Resources Information System; a sacred lands file search by the Native American Heritage Commission (NAHC), contacts with Native Americans identified by the NAHC a paleontological database search archival research and literature review; and field inspection.

SETTING

CULTURAL HISTORY

PREHISTORY

The prehistory of California's Central Valley and Sierra Nevada have been addressed repeatedly over the span of the twentieth century (e.g. Lillard et al. 1939; Moratto 1984; Rosenthal et al. 2007). The following summary adheres to Rosenthal et al. (2007) and Rosenthal (2011). Discussing the central Sierra Nevada, Rosenthal (2011) collated and analyzed projectile point data emphasizing the Bodie Hills obsidian source to derive a regional chronology tied to regional archaeological data. Rosenthal (2011) recognizes five primary prehistoric periods:

- Early Archaic: before 7,000 cal. BP;
- Middle Archaic: 7,000 to 3,000 cal. BP;
- Late Archaic: 3,000 to 1,100 cal. BP;
- Recent Prehistoric I: 1,100 to 610 cal. BP; and
- Recent Prehistoric II: 610 cal. BP to historic contact.

The Archaic Period by definition is considered to reflect a period of more mobile, possibly band-level societies moving seasonally within the region, exploiting seasonally available resources (c.f. Fredrickson 1973, Willey and Phillips 1958). Typological and materials source information reflects extended geographic social interactions extending from the California Coastal region to the Great Basin and from as far north as southern Oregon and south to the Mono Lake region. In the Great Valley during the Late Archaic and Recent Prehistoric, material preferences appear to change over time with minor amounts of obsidian in earlier sites and a steady increase in the prevalence of obsidian from Coast Range sources toward the present (Lillard et al. 1939; Moratto 1984; Rosenthal et al. 2007). Dougherty (1990), however, suggested that the apparent changes in obsidian usage were more technological in nature and did not involve increased obsidian use by individuals.

The Recent Prehistoric I reflects the earliest archaeologically identifiable development of the societies ancestral to the historic ethnographic populations. A period of apparent reduced population punctuates the transition between the Late Archaic and earliest Recent Prehistoric I (Rosenthal 2011). The Recent Prehistoric II presents indications of increased sedentary lifestyle, larger village populations, a potential shift from foraging to logistically managed subsistence and resource intensification (Fredrickson 1973). Other indicators that suggest increased social complexity include evidence of inherited status for individuals, increased importance of ritual, and the spread of clamshell disk beads used as a medium of exchange (Fredrickson 1973; Rosenthal 2011).

ETHNOHISTORY

The Project Area falls within territory ethnographically attributed to the Plains Miwok people of Central California (Bennyhoff 1977; Levy 1978; Milliken 1995). The Miwok language is a member of the Penutian language family. Penutian languages are estimated to have been spoken by half of California's native population at the time of historic contact (Moratto1984:538-539).

Plains Miwok economy depended extensively on the acorn and riparian and marsh resources including fish and waterfowl from streams and marshes, and large game from the neighboring plains. The Plains Miwok hunted and gathered year-round (Levy 1978:398-413). For other materials they participated in an extensive economic network through which both finished goods and raw materials moved. Plains Miwok technology was dependent natural materials including stone, bone, shell, wood, plant fiber, and animal products. The Miwok engaged in trade with neighboring groups and acquired obsidian from sources in the Napa Valley and from trans-Sierran sources in eastern California and western Nevada (Kroeber 1976; Levy 1978). Trade and exchange links reached the Great Basin to the east, and the Pacific coast to the west where marine shell occurred (Hull 2007).

HISTORY

The project area is located in southern Sacramento County. The nearest named place is Herald, located about two miles south-southwest of the project location. There is little historical information available for the area, which is largely agricultural. Galt is located within the historical boundaries of the Cosumnes Township. The town was laid out in

1869 by one Obed Harvey and the Western Pacific Railroad Company (Reed 1923:119-120). Reed (1923 noted that during the 1920s colonies were being laid out near Arno and “the Valensin place.” The Central California electric road ran nearby. Reed noted that during the latter half of the 19th century farms became smaller, dropping from half-section ranches to smaller 20 to 40-acre operations, more intensively worked and with a more diverse pattern of crops. This pattern largely persists at present.

Regulatory Setting

Federal

National Historic Preservation Act

The 1966 National Historic Preservation Act (NHPA) set forth national policy for recognizing and protecting historic properties. It established the National Register of Historic Places (NRHP), State Historic Preservation Officers and programs, and the Advisory Council on Historic Preservation. The implementing regulations for Section 106, Title 36, Section 800 of the Code of Federal Regulations, set forth specific steps federal agencies must follow in order to take into account the effects of their projects on historic properties. In most cases, compliance with Section 106 is carried out by federal agencies through consultation with the State Historic Preservation Officer, and in the case of projects involving tribal lands, with the tribal representative. Properties of traditional religious and cultural importance to Native Americans are considered under Section 101(d)(6)(A) of NHPA.

The NRHP - the nation’s master inventory of known historic resources - is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, and cultural value. The formal criteria (contained in Title 36, Section 60.4 of the Code of Federal Regulations) for determining NRHP eligibility are as follows:

1. The property is at least 50 years old (however, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP);

2. It retains integrity of location, design, setting, materials, workmanship, feeling, and associations; and

3. It possesses at least one of the following characteristics:

    a. Association with events that have made a significant contribution to the broad patterns of history (events).

    b. Association with the lives of persons significant in the past (persons).

    c. Distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or

represents a significant, distinguishable entity whose components may lack individual distinction (architecture).

d. Has yielded, or may be likely to yield, information important to prehistory or history (information potential).

Ordinarily, buildings and structures less than 50 years old are not considered eligible for listing in the NRHP. A resource that lacks integrity or does not meet one of the NRHP criteria is not considered a historic property under federal law, and effects to such a resource are not considered significant under the NHPA.

STATE

CALIFORNIA CODE OF REGULATIONS

The California Register of Historic Resources (CRHR) is a listing of State of California resources that are significant within the context of California's history. The CRHR is a statewide program of similar scope and with similar criteria for inclusion as those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR. A historic resource must be significant at the local, state, or national level under one or more of the criteria defined in the California Code of Regulations Title 15, Chapter 11.5, Section 4850. All resources listed in, or formally determined eligible for, the NRHP are automatically listed in the CRHR.

The following four evaluation criteria determine listing eligibility of a resource to the CRHR:

1. Is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.

2. Is associated with the lives of persons important to local, California, or national history.

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

4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Similar to the NRHP, a resource must meet one of the above criteria and retain integrity.

CALIFORNIA HEALTH AND SAFETY CODE

If human remains are discovered during construction outside of a dedicated cemetery, California Health and Safety Code Section 7050.5 requires that the project owner contact the County coroner and further excavation or disturbance of land in the vicinity of the discovery cease until the coroner has made a determination. If the coroner

determines the remains are Native American, the coroner must contact NAHC within 24 hours and the procedures outlined in Public Resources Code (PRC) Section 5097.98 must be followed.

Native American Historic Resource Protection Act

The Native American Historic Resource Protection Act California (PRC 5097-5097.993) describes the duties of the NAHC. As established in Section 5097.98, whenever the commission receives notification of a discovery of Native American human remains from a County coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods.

California Environmental Quality Act

CEQA statutes [PRC 2100l(b) et seq.] require planning agencies to carefully consider the potential effects of a project on historical resources. Under the revised and adopted CEQA guidelines in Section 15064.5, a "historical resource" includes: a resource listed in or eligible for the CRHR; or listed in a local register of historical resources; or identified in a historical resource survey and meeting requirements in Section 5024.l(g) of the PRC; or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines historically significant, provided the determination is supported by substantial evidence in light of the whole record; or a resource so determined by a lead agency as defined in PRC 5020.l(j) or Section 5024.1. Under the State CEQA Guidelines, "[a] project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment [Public Resources Code Section 15064.5(b)]." Substantial adverse change is "... physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (PRC 15064.5(b)(2)).

CEQA also requires planning agencies to consider the effects of a project on unique archaeological resources. If an archaeological site meets the definition of a unique archaeological resource (PRC 21083.2), then the site must be treated in accordance with the special provisions for such resources, which include time and cost limitations for implementing mitigation. Resources that neither meet any of the criteria for listing on the NRHP or CRHR, nor qualify as a “unique archaeological resource” under PRC Section 21083.2 are viewed as not significant. Under CEQA, “[a] nonunique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects” (PRC Section 21083.2(h)). Under CEQA, if an archeological site is not a significant “historical resource” but meets the definition of a “unique archeological resource” as defined in PRC Section 21083.2, then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined as follows:

> An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
>
> > (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
> >
> > (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
> >
> > (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

State CEQA Guidelines Section 15064.5(e), requires that excavation activities be stopped whenever human remains are uncovered and that the County coroner be called in to assess the remains. If the County coroner determines that the remains are those of Native Americans, the NAHC must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as timely identified by the NAHC. Section 15064.5 directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

In addition to the mitigation provisions pertaining to accidental discovery of human remains, the State CEQA Guidelines also require that a lead agency make provisions for the accidental discovery of historical or archaeological resources. Pursuant to Section 15064.5(f), these provisions should include “an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place.”

TRIBAL CULTURAL RESOURCES

Assembly Bill (AB) 52, “Native Americans: California Environmental Quality Act,” amended CEQA to identify a “Tribal Cultural Resource” as a new, separate, and distinct resource to be analyzed under CEQA. The bill also amends Section 5097.94 (Native American Historical, Cultural, and Sacred Sites) of the PRC and adds Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21084.2, and 21084.3 to the CEQA statutes. The additions to CEQA mandate clear timelines for consultation with California Native American tribes.

AB 52 applies to all projects that have a notice of preparation or a notice of negative declaration or mitigated negative declaration filed on or after July 1, 2015. The bill requires that a lead agency notify a California Native American tribe about projects in its purview if that tribe has requested, in writing, to be kept informed of projects proposed by the lead agency and continue to consult with the tribe, if requested. The bill also

specifies mitigation measures that may be considered to avoid or minimize impacts on Tribal Cultural Resources.

Local

Sacramento County General Plan

Policies related to cultural resources are set forth in Section VIII of the Conservation Element. Policies relevant to the project include the following:

Policy CO-155. Native American burial sites encountered during preapproved survey or during construction shall, whenever possible, remain in situ. Excavation and reburial shall occur when in situ preservation is not possible or when the archeological significance of the site merits excavation and recording procedure. On-site reinternment shall have priority. The project developer shall provide the burden of proof that off-site reinternment is the only feasible alternative. Reinternment shall be the responsibility of local tribal representatives.

Policy CO-158. As a condition of approval of discretionary permits, a procedure shall be included to cover the potential discovery of archaeological resources during development or construction.

Policy CO-161. As a condition of approval for discretionary projects, require appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources.

Policy CO-163. Require that a certified geologist or paleoresources consultant determine appropriate protection measures when resources are discovered during the course of development and land altering activities.

Significance Criteria

Based on Appendix G of the State CEQA Guidelines, the project was determined to result in a significant impact to cultural resources if it would:

- cause a substantial adverse change in the significance of an historical resource as defined in Section 15064.5 of the State CEQA Guidelines;
- cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5 of the State CEQA Guidelines;
- disturb any human remains, including those interred outside of formal cemeteries; or
- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;

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

Impacts And Analysis

Methodology

The impacts analysis for cultural resources is based on the findings and recommendation of the *Cultural Resources Inventory Squirrel Monkey Haven Project, Sacramento County, California* (Dougherty 2017). The analysis is also informed by the provisions and requirements of federal, state, and local laws and regulations applicable to cultural resources.

Impact: Adversely Affect Important Cultural or Archaeological Resources

The cultural resources inventory and evaluation did not identify any archaeological or tribal resources on the project site or within a quarter-mile of the project area (Dougherty 2017). The NCIC records search did not yield any resources, studies, or reports within a quarter-mile of the project area. The NAHC did not identify any sacred sites that could be affected by the project.

Although no NRHP- or CRHR-listed or eligible resources, unique archaeological resources, tribal cultural resources, or traditional cultural properties have been documented in the project site, the project is located in a region where significant prehistoric and historic-era cultural resources have been recorded and there remains a potential that undocumented cultural resources could be unearthed or otherwise discovered during ground-disturbing and construction activities. Prehistoric or ethnohistoric materials might include flaked stone tools, tool-making debris, stone milling tools, shell or bone items, and fire-affected rock or soil darkened by cultural activities (midden); examples of significant discoveries would include villages and cemeteries. Historic materials might include metal, glass, or ceramic artifacts; examples of significant discoveries might include former privies or refuse pits. Due to the potential for these undocumented resources to occur on the project site, there could be significant impacts on cultural resources.

Implementation of Mitigation Measure CR-1 would ensure that any undocumented cultural resources or inadvertent discoveries of cultural resources made during construction or ground-disturbing activities would be properly recorded and the historical significance of the resources documented. This mitigation is consistent with Sacramento County General Plan Policy CO-158, which requires that procedures to cover the potential discovery of archaeological resources during development or construction be included as a condition of approval of discretionary permits. Therefore, potentially

significant impacts resulting from inadvertent damage or destruction of unknown cultural resources during construction would be reduced to a ***less-than-significant*** level.

Impact: Disturb Human Remains, Including Those Interred Outside of Formal Cemeteries

There is no known evidence of potential for human burials on the project site. In the event human remains are discovered, the contractor would be required to comply with existing regulations. Pursuant to Section 7050.5 of the California Health and Safety Code, in case of the discovery of human remains, all work would stop and the County coroner would be immediately notified. If the remains are determined to be Native American, guidelines of the NAHC would be adhered to in the treatment and disposition of the remains, consistent with PRC Section 5097.98 and Sacramento County General Plan Policy CO-155. With application of applicable laws and regulations, any disturbance of human remains would be handled such that there would be a ***less-than-significant*** impact.

Impact: Adversely Affect a Unique Paleontological Resource or Site, or a Unique Geologic Feature

According to the State CEQA Guidelines, a project is considered to have a significant impact on paleontological resources if it would directly or indirectly result in the destruction of a unique paleontological resource. No known paleontological resources or sites occur at the project location; therefore, Sacramento County General Plan Policy CO-161 (which requires appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources) would not apply. Because no paleontological resources are known to be present and the site has very low potential for paleontological resources, this impact would be ***less than significant***.

Impact: Adversely Affect Tribal Cultural Resources

Pursuant to AB52, Tribes that have requested notification of projects in accordance with Public Resources Code 21080.3.1(b)(1) were notified and provided an opportunity to request consultation. Wilton Rancheria was the only tribe that requested consultation. Documents were shared with Wilton and a consultation meeting was determined not to be necessary. In addition, The Cultural Resources Inventory did not identify any sacred sites on or near the project site. Impacts to tribal cultural resources are, therefore, considered ***less than significant.***

Mitigation Measures

Mitigation Measure CR-1: If cultural resources are discovered during project-related construction activities, all ground disturbances within a minimum of 50 feet of the find shall be halted and the Planning and Environmental Review Division of the Community Development Department shall be immediately notified at (916) 874-7499. Work shall remain suspended until a County-identified, qualified professional archaeologist can

evaluate the discovery. The archaeologist shall examine the resources, assess their significance, and recommend appropriate procedures to the lead agency to either further investigate or mitigate adverse impacts. If the find is determined to be a significant historical resource and the archaeological resource cannot be avoided, then applicable mitigation measures for significant resources shall be completed (e.g., preservation in place, data recovery program pursuant to PRC Section 21083.2[i]). The project applicant shall be required to implement any mitigation deemed necessary for the protection of such cultural resources. During evaluation or mitigated treatment, ground disturbance and construction work could continue on other parts of the project site.

10 GREENHOUSE GASES & CLIMATE CHANGE

INTRODUCTION

This chapter provides a discussion of climate change science and greenhouse gas (GHG) emissions sources in California and Sacramento County; a summary of applicable regulations with respect to local, regional, and statewide GHG emission sources; and includes an analysis of potential short- and long-term GHG impacts caused by the project.

GHG emissions have the potential to adversely affect the environment because, on a cumulative basis, they contribute to global climate change. In turn, global climate change has the potential to result in rising sea levels, which can inundate low-lying areas; affect rain and snow fall, leading to changes in water supply; result in increased risk of catastrophic wildfire; and to affect habitat, leading to adverse effects on biological and other resources.

SETTING

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

THE PHYSICAL SCIENTIFIC BASIS

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. The absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), chlorofluorocarbons (CFCs), and fluorinated gases hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Some GHGs such as CO_2 occur naturally, and are emitted to the atmosphere through natural processes and human activities. Other GHGs (e.g., fluorinated gases) are created and emitted solely through human activities.

Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global

warming. It is “extremely likely” that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors (Intergovernmental Panel on Climate Change [IPCC] 2014:3, 5).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any particular GHG molecule is dependent on multiple variables and cannot be determined with any certainty, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains in the atmosphere (IPCC 2013:467).

EFFECTS OF CLIMATE CHANGE ON THE ENVIRONMENT

IPCC was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme to provide the world with a scientific view on climate change and its potential effects. According to the IPCC global average temperature is expected to increase relative to the 1986-2005 period by 0.3 to 4.8 degrees Celsius (°C) (0.5 to 8.6 degrees Fahrenheit [°F]) by the end of the 21st century (2081-2100), depending on future GHG emission scenarios (IPCC 2014:SPM-8). According to the California Natural Resources Agency (CNRA), temperatures in California are projected to increase 2.7°F above 2000 averages by 2050 and, depending on emission levels, 4.1 to 8.6°F by 2100 (CNRA 2012:2).

Physical conditions beyond average temperatures could be affected by the accumulation of GHG emissions. For example, changes in weather patterns resulting from increases in global average temperature are expected to result in a decreased volume of precipitation falling as snow in California and an overall reduction in snowpack in the Sierra Nevada. Based on historical data and modeling, the California Department of Water Resources (CDWR) projects that the Sierra snowpack will decrease by 25 to 40 percent from its historic average by 2050 (CDWR 2008:4). An increase in precipitation falling as rain rather than snow also could lead to increased potential for floods because water that would normally be held as snow in the Sierra Nevada until spring could flow into the Central Valley concurrently with winter storm events (CNRA 2012:5). This scenario would place more pressure on California’s levee/flood control system.

Another outcome of global climate change is sea level rise. Sea level rose approximately 7 inches during the last century and, assuming that sea-level changes along the California coast continue to reflect global trends, sea level along the state’s coastline in 2050 could be 10 to 18 inches higher than in 2000, and 31 to 55 inches higher by the end of this century (CNRA 2012:9).

As the existing climate throughout California changes over time, the ranges of various plant and wildlife species could shift or be reduced, depending on the favored temperature and moisture regimes of each species. In the worst cases, some species would become extinct or be extirpated from the state if suitable habitat conditions are no longer available (CNRA 2012:11, 12).

Changes in precipitation patterns and increased temperatures are expected to alter the distribution and character of vegetation and associated moisture content of plants and soils. An increase in frequency of extreme heat events and drought are also expected. These changes are expected to lead to increased frequency and intensity of large wildfires (CNRA 2012:11).

GREENHOUSE GAS EMISSIONS SOURCES

STATEWIDE GREENHOUSE GAS EMISSIONS INVENTORY

Emissions of GHGs contributing to global climate change are attributable, in large part, to human activities associated with on-road and off-road transportation, industrial/manufacturing, electricity generation by utilities and consumption by end users, residential and commercial onsite fuel usage, agriculture, high global warming potential (GWP) gases, and recycling and waste sectors (California Air Resources Board [ARB] 2015). The most recent California statewide GHG emissions inventory is summarized in Table CC-1.

In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (ARB 2015). Emissions of CO_2 are, largely, byproducts of fossil fuel combustion. CH_4, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N_2O is also largely attributable to agricultural practices and soil management. Additionally, high-GWP gases have atmospheric insulative properties that are hundreds to tens of thousands of times greater than that of CO_2. HFCs, PFCs, and SF_6 are some of the most common types of high-GWP gases and result from a variety of industrial processes. HFCs and PFCs are used as refrigerants and can be emitted through evaporation and leakage. SF_6 is a powerful electrical insulator used in power transmission and semiconductor manufacturing and is emitted through evaporation and leakage into the atmosphere.

Table CC-1: California Statewide Greenhouse Gas Emissions Inventory (1990-2016)

Emissions Sector	MMT CO_2e				Percent of Total (2016)	Percent Change (1990-2016)
	1990[1]	2000	2010	2016		
Transportation	151	176	170	174	41%	15%
Electricity Generation[2]	111	105	91	69	16%	38%
Industrial	103	105	101	100	23%	-3%
Commercial and Residential Fuel Use	44	45	51	51	12%	16%
Agriculture	23	32	34	34	8%	48%
Total[3]	**432**	**471**	**448**	**429**	**100**	**-1%**

Notes: GWP = global warming potential; MMT CO_2e = million metric tons of carbon dioxide equivalent

1 California's first 1990 GHG emissions inventory was prepared in 2007 by ARB using GWP values from the IPCC Second Assessment Report (IPCC 1995). All other inventory years shown use GWP values from the IPCC Fourth Assessment Report (IPCC 2007).

2 Includes both in-state electricity generation and out-of-state imported electricity that is consumed in-state.

3 Totals may not sum exactly due to rounding and "not specified" categories being left out.

Sources: ARB 2007, ARB 2018.

SACRAMENTO COUNTY GREENHOUSE GAS INVENTORY

In June 2009, Sacramento County worked with other local agencies in the county to inventory GHG emission sources and quantities using data from 2005 (Sacramento County 2011a). This 2005 baseline approximates the "current levels" of emissions referenced in ARB Scoping Plan. The inventory is broken down into the following three categories in the County's Climate Action Plan (CAP): 1) entire county (referred to as "countywide"), 2) unincorporated county area, and 3) Sacramento County government operations (Sacramento County 2011a). The inventory provides useful information for selecting and prioritizing actions to reduce emissions, and it serves as a baseline for measuring progress toward meeting the statewide GHG reduction target mandated by the Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). The original 2009 inventory and updated 2011 inventory for some of the sectors were used to prepare the .

Table CC-2.

Table CC-2: 2015 Unincorporated Sacramento County Community Greenhouse Gas Inventory

Sectors	2015 ($MTCO_2e$/year)	Percent of Total
Residential Energy	1,193,311	25%
Commercial/Industrial Energy	890,603	18%
Building Total	*2,083,914*	*43%*
On-Road Vehicles	1,671,596	34%
Off-Road Vehicles	196,769	5%
Transportation Total	*1,868,365*	*39%*
Solid Waste	352,909	7%
Agriculture	254,899	5%
High-GWP Gases	251,085	5%
Wastewater	27,253	<1%
Water-Related	15,222	<1%
Total	**4,853,647**	**100%**

Notes: Totals may not add due to rounding. $MTCO_2e$ = metric tons of carbon dioxide equivalent; GWP = Global Warming Potential

Source: Data compiled by Ascent Environmental in 2016.

Regulatory Setting

Federal

Federal Clean Air Act

The U.S. Environmental Protection Agency (EPA) is the federal agency responsible for implementing the federal Clean Air Act (CAA) and its amendments. The Supreme Court of the United States ruled on April 2, 2007 that CO_2 is an air pollutant as defined under the CAA, and that EPA has the authority to regulate emissions of GHGs. The ruling in this case resulted in EPA taking steps to regulate GHG emissions and lent support for state and local agencies' efforts to reduce GHG emissions.

National Program to Cut Greenhouse Gas Emissions and Improve Fuel Economy for Cars and Trucks

On August 28, 2014, EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) finalized a new national program that would reduce GHG emissions and improve fuel economy for all new cars and trucks sold in the U.S. (NHTSA 2012). EPA proposed the first-ever national GHG emissions standards under the CAA, and NHTSA proposed Corporate Average Fuel Economy standards under the Energy Policy and Conservation Act. This proposed national program allows automobile manufacturers to build a single light-duty national fleet that satisfies all requirements under both Federal programs and the standards of California and other states. While this program will increase fuel economy to the equivalent of 54.5 miles per gallon for cars and light-duty trucks by Model Year 2025, additional phases are being developed by NHTSA and EPA that address GHG emission standards for new medium- and heavy-duty trucks.

State

California Global Warming Solutions Act

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Global Warming Solutions Act of 2006. AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 also requires that these reductions "…shall remain in effect unless otherwise amended or repealed. (b) It is the intent of the Legislature that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020. (c) The (Air Resources Board) shall make recommendations to the Governor and the Legislature on how to continue reductions of greenhouse gas emissions beyond 2020." [California Health and Safety Code, Division 25.5, Part 3, Section 38551]

Climate Change Scoping Plan and Update

In December 2008, ARB adopted its Climate Change Scoping Plan, which contains the main strategies California will implement to achieve reduction of approximately 118 MMT CO_2e, or approximately 22 percent, from the State's projected 2020 emission level of 545 MMT CO_2e under a business-as-usual scenario. This is a reduction of 47 MMT CO_2e, or almost 10 percent, from 2008 emissions. ARB's original 2020 projection was 596 MMT CO_2e, but this revised 2020 projection takes into account the economic downturn that occurred in 2008 (ARB 2011). The Scoping Plan reapproved by ARB in August 2011 includes the Final Supplement to the Scoping Plan Functional Equivalent Document, which further examined various alternatives to Scoping Plan measures. The Scoping Plan also includes ARB-recommended GHG reductions for each emissions sector of the state's GHG inventory.

In May 2014, ARB released and has since adopted the *First Update to the Climate Change Scoping Plan* to identify the next steps in reaching AB 32 goals and evaluate

the progress that has been made between 2000 and 2012 (ARB 2014:4 and 5). According to the update, California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020 (ARB 2014: ES-2). The update also reports the trends in GHG emissions from various emission sectors. A new update is currently in process.

Sustainable Communities and Climate Protection Act

The Sustainable Communities and Climate Protection Act of 2008 (SB 375) aligns regional transportation planning efforts, regional GHG emission reduction targets for cars and light trucks, land use planning, and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy, which integrates regional land use and transportation planning within an MPO's Regional Transportation Plan.

SB 375 requires ARB, in consultation with MPOs, to provide each region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years, but can be updated every four years, if advancements in emissions technologies affect the reduction strategies to achieve the targets.

Sacramento County is under the jurisdiction of the Sacramento Area Council of Governments (SACOG), which includes Yolo, Sutter, Yuba, Placer, El Dorado, and Sacramento Counties. In February 2016, SACOG adopted its 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), which is the region's transportation and sustainability investment strategy for protecting and enhancing the region's quality of life and economic prosperity through 2035. Plan implementation is expected to result in regional benefits to mobility, economy, health and sustainability. SACOG's plan is also expected to help California reach its GHG reduction goals, with a 34 percent reduction in GHG emissions by 2020 (15 MMT CO_2e) and a 38 percent reduction by 2036 (14.15 MMT CO_2e)—compared with 2008 levels (22.7 MMT CO_2e (SACOG 2016)).

California Environmental Quality Act

SB 97 directed the California Natural Resources Agency to adopt amendments to the California Environmental Quality Act (CEQA) Guidelines related to analysis of GHG emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

CEQA allows lead agencies to analyze and mitigate the significant effects of GHG emissions at a programmatic level, such as in a general plan, or as part of a separate plan (e.g., a climate action plan) to reduce GHG emissions (CEQA 15183.5).

California Building Efficiency Standards of 2016 (Title 24, Part 6)

Buildings in California are required to comply with California's Energy Efficiency Standards for Residential and Nonresidential Buildings established by the California Energy Commission (CEC) in 1978 and updated on an approximately 3-year cycle to allow consideration and possible incorporation of new energy efficient technologies and methods. All buildings for which an application for a building permit is submitted on or after January 1, 2017 must follow the 2016 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The CEC Impact Analysis for California's 2016 Building Energy Efficiency Standards estimates that the 2016 Standards are 28 percent more efficient than the previous 2013 standards for single-family residential construction (CEC 2016).

Clean Energy and Pollution Reduction Act

Approved by the Governor on October 7, 2015, the California Energy and Pollution Reduction Act (SB 350) targets a 50 percent renewable mix in California electricity by December 31, 2030 and a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030 with annual targets established by the CEC. This bill is meant as an extension of the State's current 2020 Renewable Portfolio Standards goal. SB 350's energy efficiency goals are applicable to both existing building stock and new construction, but would have the most impact on existing building stock.

Executive Order B-30-15

On April 20, 2015, Governor Edmund G. Brown Jr. signed Executive Order (EO) B-30-15 to establish a new California GHG reduction target of 40 percent below 1990 levels by 2030, as well as increase statewide efforts to address the need for increased climate change adaptation measures by State agencies. This EO aligns California's GHG reduction targets with those of leading international governments such as the 28-nation European Union which adopted the same target in October 2014. California is on track to meet or exceed its legislated target of reducing GHG emissions to 1990 levels by 2020, as established in AB 32 (summarized above). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the United States to limit global warming below 2°C, the warming threshold at which there will likely be major climate disruptions such as super droughts and rising sea levels. The targets stated in EO B-30-15 have not been adopted by the State legislature.

Senate Bill 32 and Assembly Bill 197, Statutes of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize ARB to achieve a statewide GHG emission reduction of at least 40 percent below the AB 32 goal of 1990 levels by 2020 by no later than December 31, 2030. SB 32 codified the

targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

SB 32 is contingent upon AB 197, which grants the State Legislature stronger oversight over ARB's implementation of its GHG reduction programs. AB 197 amended the existing Health and Safety Code sections and establish new statutory directions, including the following provisions. Section 9147.10 establishes a six-member Joint Legislative Committee on Climate Change Policies to ascertain facts and make recommendations to the Legislature. ARB is required to appear before this committee annually to present information on GHG emissions, criteria pollutants, and toxic air contaminants from sectors covered by the Scoping Plan. Section 38562.5 requires that ARB consider social cost when adopting rules and regulations to achieve emissions reductions, and prioritize reductions at large stationary sources and from mobile sources. Section 38562.7 requires that each Scoping Plan update identify the range of projected GHG and air pollution reductions and the cost-effectiveness of each emissions reduction measure.

Local

Sacramento Metropolitan Air Quality Management District

Sacramento Metropolitan Air Quality Management District (SMAQMD), is the primary agency responsible for addressing air quality concerns in Sacramento County—its role is discussed further in Chapter 7, "Air Quality." SMAQMD also recommends methods for analyzing project-generated GHGs in CEQA analyses and offers a myriad of potential GHG reduction measures for land use development projects to be considered by lead agencies. SMAQMD has developed thresholds of significance to provide a uniform scale to measure the significance of GHG emissions from land use and stationary source projects in compliance with CEQA and AB 32. However, in accordance with SMAQMD guidance, when other local agencies have developed their own thresholds of significance for evaluating GHG emissions, these take precedence over SMAQMD thresholds.

Sacramento County General Plan

The Sacramento County 2030 General Plan includes the following policies in the Air Quality Element and in the Land Use Element, respectively, related to reducing GHG emissions in Sacramento County (Sacramento County 2011b).

Policy AQ-22. Reduce greenhouse gas emissions from County operations as well as private development.

Policy LU-115. It is the goal of the County to reduce GHG emissions to 1990 levels by the year 2020. This shall be achieved through a mix of State and local action.

Sacramento County Climate Action Plan

The Sacramento County CAP Strategy and Framework Document presents a framework for reducing GHG emissions and managing water and other resources to best prepare for a changing climate (Sacramento County 2011a). It defines an overall strategy to address climate change, including:

- Reducing GHG emissions associated with the County's own operations, as well as taking actions that facilitate GHG emissions reduction in the community.
- Establishing priorities based on a number of factors, such as cost-effectiveness and co-benefits.
- Addressing projected vulnerabilities associated with climate change where cost-effective or required.
- Working collaboratively with other jurisdictions and leveraging existing programs and resources.

This CAP describes actions that the County has already taken or could take in the future to reduce GHG emissions and adapt to a changing climate, while being more resource efficient. Table CC-3 summarizes those actions most relevant to the project, broken down by emissions sector. The existing Sacramento County CAP does not meet all of the criteria in Section 15183.5(b)(1) as a plan for the reduction of GHG emissions. The County is currently preparing an updated CAP to meet all specified criteria.

Table CC-3: Sacramento County CAP Actions to Address Climate Change

Sector	Goals
Transportation and Land Use	Increase the average fuel efficiency of County-owned vehicles powered by gasoline and diesel and encourage increased fuel efficiency in community vehicles. Increase use of alternative and lower carbon fuels in the County vehicle fleet and facilitate their use in the community. Reduce total vehicle miles traveled per capita in the community and the region.
Energy	Improve energy efficiency of existing and new buildings in the unincorporated County. Improve energy efficiency of County infrastructure operation (roads, water, waste, buildings, etc). Decrease use of fossil fuels by transitioning to renewable energy sources.
Water	Achieve 20% reduction in per capita water use levels by 2020. Emphasize water use efficiency as a way to reduce energy consumption. Increase energy efficiency related to water system management. Strive to reduce uncertainties in water reliability and quality by increasing the flexibility of the water allocation and distribution system to respond to drought conditions and encouraging redundancy in water storage, supply, and treatment systems. Elevate the importance of floodplain and open space protection as a means of protecting water quality and habitat, sequestering carbon, and providing groundwater recharge opportunities.
Waste Management and Recycling	Promote reduction in consumption. Maximize waste diversion, composting, and recycling through expanding residential and commercial programs. Reduce methane emissions at Kiefer Landfill.
Agriculture and Open Space	Protect important farmlands, rangelands and open space from conversion and encroachment and maintain connectivity of protected areas. Educate the local agricultural community about the impacts of climate change and support efforts to promote sustainable practices.

Sector	Goals
	Promote water conservation to ensure reliable and sufficient water supplies for crop irrigation and livestock needs. Implement policies and programs which increase demand for locally grown and processed agricultural commodities. Achieve a net gain in the size, health, and diversity of protected open space and the local urban forest, encouraging native species wherever practical. Ensure community understanding of and appreciation for open space, parks, and trees both as a vital part of the region's character and as a greenhouse gas reduction strategy.

Source: Sacramento County 2011a

Significance Criteria

Per Appendix G of the CEQA Guidelines and SMAQMD recommendations, greenhouse gas impacts are considered significant if the project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG's.

The guidelines do not include a numeric significance threshold, but instead defer to the lead agency to determine whether there are thresholds which apply to the project. With regard to the third item, statewide plans include AB 32 and SB 375, as described in the Regulatory setting. The underlying strategy and assumptions of the AB 32 Scoping Plan were used to develop County thresholds. AB 32 requires emissions be reduced to 1990 levels by the year 2020, which is estimated in the AB 32 Scoping Plan to be 15% below existing (2005) emissions.

As previously discussed, Sacramento County prepared a GHG emissions inventory for the County, and as an offshoot of that process has published a Draft Climate Action Plan. Thresholds have been developed based on the County inventory (Table CC-4). As shown below, separate thresholds have been included for each sector. The purpose of this division is to provide additional information about the source of emissions. When making a final determination of significance, these thresholds can be combined to generate a total emissions threshold; it is this total threshold that will ultimately determine whether impacts are found to be significant.

Table CC-4: Greenhouse Gas Significance Thresholds (Annual Metric Tons CO_2e)

Sector	2005 Baseline	2020 Target	Thresholds
Residential Energy	1,033,142	878,275	1.33 per capita
Commercial & Industrial Energy	772,129	656,914	7.87 per Kft^2
Transportation	2,066,970	1,757,236	2.67 per capita
Trucks	*488,806*	*414,470*	*0.10 per 100 VMT*

Also note that the transportation sector is expressed in per capita, which is not applicable to non-residential projects. The determination was made that, in general, non-residential projects redistribute existing trips made by passenger vehicles – they do not generate new trips. The majority of trips to and from a commercial project are generated by residential uses. Residential projects are already being required to account for transportation emissions, so including them for commercial projects as well would result in double-counting; therefore, only the truck-trips generated by a commercial project itself will be subject to analysis. An exception to this rule is any commercial project which is a regional draw or unique draw and may cause the redistribution of existing trips in a manner that will increase total existing VMT.

Impacts And Analysis

Methodology

SMAQMD has established recommended thresholds that ensure that 90 percent of emissions from projects in the region are reviewed to determine the need for additional mitigation. According to SMAQMD's methodology, a land use development project with operational emissions that are less than 1,100 metric tons (MT) of carbon dioxide equivalent (CO_2e) per year will not result in a significant impact and will not require additional mitigation. SMAQMD assumes that projects with operational emissions below 1,100 MT of CO_2e /year will not exceed their construction GHG threshold of significance as long as the project does not include buildings that are more than four stories tall, significant trenching, demolition activities, a compact construction schedule, significant cut and fill operations, or significant truck activity.

SMAQMD has established an Operational Screening Levels table, which shows the size of development, by land use type, that SMAQMD has determined would not exceed the operational GHG emissions thresholds. Projects that are smaller than those listed in the table and, which meet the construction parameters listed above, are considered to have a less than significant impact related to Climate Change. For projects that exceed the development size listed in the table, SMAQMD recommends the use of CalEEMod to quantify the GHG emissions that would be generated by the project.

Pursuant to Sacramento County methodology, SMAQMD's threshold of 1,100 MT of CO_2e /year is used as an initial screening threshold. Projects which screen out using the screening threshold of 1,100 MT/year of CO_2e are considered to have a less than significant impact related to Climate Change and no further analysis is required. Projects which do not screen out using SMAQMD's GHG Operational screening levels table or SMAQMD's threshold of 1,100 MT of CO_2e /year must then be evaluated using the County's GHG thresholds (Table CC-4).

Impact: Generation of Greenhouse Gas Emissions

Pursuant to Sacramento County methodology, the project-related GHG emissions were first analyzed by comparing them to the SMAQMD threshold of 1,100 MT of CO_2e /year. Because this project involves a use that is not specifically listed in the SMAQMD screening table the California Emissions Estimator Model (CalEEMod) was used to estimate the annual metric tons of CO_2 equivalent (CO_2e) attributable to the construction and operation of the proposed project. (please refer to Appendix E for CalEEMod runs).

Based on the unique characteristics of the proposed monkey sanctuary; PER staff consulted with SMAQMD staff regarding the appropriate land use classification and variables to use in the model. In addition, the defaults in CalEEMod were changed to reflect the emission anticipated for operation in 2019, and carbon intensity forecasts for the Sacramento Municipal Utility District (SMUD) based on SMUD's 2009 reporting year.

Table CC-5 shows the project's estimated annual GHG emissions for construction and operation.

Table CC-5: Project's Estimated Greenhouse Gas Emissions

	MT of CO_2e /Year
Estimated Construction GHG Emissions	18.25
Estimated Annual Operational GHG Emissions	118.79
SMAQMD GHG Emissions Threshold	1,100
Exceed SMAQMD Threshold	No

As shown in Table CC-5, the estimated GHG emissions for both facility construction and annual operation are significantly below SMAQMD's thresholds of 1,100 annual metric tons. Impacts related to GHG emissions and contributions to climate change are ***less than significant.***

Mitigation Measures

None required.

11 BIOLOGICAL RESOURCES

INTRODUCTION

This chapter addresses biological resources known or with potential to occur on the project site, and describes potential effects of project implementation on those resources. Biological resources include common vegetation and habitat types, sensitive plant communities, and special-status plant and animal species. The analysis includes a description of the existing environmental conditions, the methods used for assessment, the potential direct and indirect impacts of project implementation, and mitigation measures recommended to address impacts determined to be significant or potentially significant. Federal, state, and local regulations that pertain to biological resources are summarized.

The assessment is based largely on the information and evaluation presented in the Biological Resource Assessments (Bargas Environmental Consulting, 2018; Appendix F), as well as subsequent site reconnaissance and database queries.

SETTING

The site is located on a residential property in a rural community northeast of Galt, California. The western portion of the five-acre parcel is developed with a residential home and two accessory structures (reference Plate BR-1). The proposed kennel/monkey sanctuary will be located in the center of the parcel. This area is currently a fenced, agricultural pasture of approximately two acres. The pasture has an even grade and is kept mowed. Vegetation consists of annual grass, star thistle, and similar annual plants that prefer disturbed soil areas. A 0.07-acre, man-made pond is located at the northeast corner of the property. The pond is dominated by tules and cattails and is surrounded by valley oaks and ornamental pines.

The project area appears to contain only Galt clay soils. Galt clay soils are dense, dark clay soils developed in basin areas originally subject to flooding. The project site is located within the Willock Creek (South) watershed. The nearest perennial water courses are Badger Creek, located approximately 0.80 miles north and Laguna Creek located about 0.75 miles to the southeast.

Plate BR-1: Project Site

Special-Status Species

Special-status species are plants and animals that are legally protected or that are otherwise considered sensitive by federal, state, or local resource agencies. In this document, special-status species are defined as:

- species listed or proposed for listing as threatened, rare, or endangered under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA);
- species considered as candidates for listing under the ESA or CESA;
- taxa (i.e., taxonomic category or group) that meet the criteria for listing, even if not currently included on any list, as described in California Code of Regulations (CCR) Section 15380 of the State CEQA Guidelines;
- species identified by the California Department of Fish and Wildlife (CDFW) as Species of Special Concern;
- species listed as Fully Protected under the California Fish and Game Code;
- species afforded protection under local planning documents; and
- taxa considered by the CDFW to be “rare, threatened, or endangered in California” and assigned a California Rare Plant Rank (CRPR).

Special-status species are tracked in CDFW’s California Natural Diversity Database (CNDDB), a statewide inventory of the locations and conditions of the state’s rarest plant and animal taxa and vegetation types. CDFW’s CRPR includes five rarity and endangerment ranks for categorizing plant species of concern. All plants with a CRPR are considered “special plants” by CDFW. The term “special plants” is a broad term used by CDFW to refer to all of the plant taxa inventoried in the CNDDB, regardless of their legal or protection status. Plants ranked as CRPR 1A (plants presumed to be extinct in California), 1B (plants that are rare, threatened, or endangered in California and elsewhere), and 2 (plants that are rare, threatened, or endangered in California but more common elsewhere) may qualify as endangered, rare, or threatened species within the definition of State CEQA Guidelines (CCR Section 15380). In general, plant species ranked CRPR 3 (plants about which more information is needed) and 4 (plants of limited distribution) do not meet the definition of endangered, rare, or threatened pursuant to CEQA Section 15380. As such, CRPR 3 and 4 species are not included in this analysis.

The term “California species of special concern” is applied by CDFW to animals not listed under the federal ESA or CESA, but that are considered to be declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. CDFW’s fully protected status was California’s first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as threatened or endangered under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.

A list of special-status species known or with potential to occur on the project site or in the immediate vicinity was developed from database queries of USFWS' Information for Planning and Consultation (IPaC), CDFW's California Natural Diversity Database (CNDDB), and the California Native Plant Society Inventory (CNPS), together with reconnaissance surveys conducted by Bargas Environmental Consulting biological staff (Grayson Sandy), on May 1 and August 21, 2018.

SPECIAL-STATUS PLANTS

Table BR-1 provides a list of the special-status plant species that have been documented in the CNDDB nine-quadrangle search (Elk Grove, Sloughouse, Carbondale, Galt, Clay, Goose Greek, Lodi North, Lockeford, and Clements USGS 7.5-minute quadrangles) and describes their regulatory status, habitat, and potential for occurrence on the project site.

Table BR-1: Special-Status Plant Species documented in Nine-Quadrangle CNDDB Query

Species	Status [1]			Habitat and Blooming Period	Potential for Occurrence[2]
	USFWS	CDFW	CRPR		
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	–	–	1B.2	Vernal pools and swales in areas of low cover of competing vegetation; most often on gopher turnings along margins of pools or swales (Witham 2006:38); 0 to 1,000 feet elevation. Blooms March-May.	Not expected to occur. Suitable habitat for this species is present on the project site and two known occurrences are present within five miles of the project site.
Bogg's Lake hedge-hyssop *Gratiola heterosepala*	–	E	1B.2	Lake margin marshes and swamps, vernal pools, and other seasonal wetlands, primarily in clay soils; 30 to 8,000 feet elevation. Blooms April–August.	Not expected to occur. While the area on the margins of the stock pond may provide suitable habitat for the species, it is unlikely to exist as the pond is perennially-inundated; moreover, the species was not observed during biological surveys, which were conducted during the blooming period (Bargas 2018).
Legenere *Legenere limosa*	–	–	1B.1	Relatively deep and wet vernal pools (Witham 2006:39); below 3,000 feet elevation. Blooms April–June.	Not expected to occur. Known occurrences are located within 5 miles of the project site. Surveys conducted during blooming period did not detect this species.
Sacramento Orcutt grass *Orcuttia viscida*	E	E	1B.1	Vernal pools; 95 to 325 feet elevation. Blooms April–July.	Not expected to occur. The project site does not fall into the elevation range for this species. Surveys conducted during blooming period did not detect this species. Nearest known occurrence approximately seven miles east of project site.
Sanford's arrowhead *Sagittaria sanfordii*	–	–	1B.2	Shallow freshwater marshes and swamps; below 2,200 feet elevation. Blooms May–October.	Not expected to occur. The project site does not provide potential habitat. Surveys conducted during blooming period did not detect this species. Nearest known occurrence six miles northeast of project site.

Table BR-1: Special-Status Plant Species documented in Nine-Quadrangle CNDDB Query

Species	Status [1]			Habitat and Blooming Period	Potential for Occurrence[2]
	USFWS	CDFW	CRPR		
Succulent owl's clover *Castilleja campestris ssp. succulenta*	T	E	1B.2	Vernal pools and swales; 165 to 2,460 feet elevation. Blooms April – May.	Not expected to occur. The project site is well below the expected elevation range for this species. Surveys conducted during the blooming period did not detect this species.
Pinchushion navarretia *Navarretia myersii ssp. myersii*	-	-	1B.1	Vernal pools; 65 to 1080 feet elevation. Blooms April – May.	Not expected to occur. Surveys conducted during the blooming period did not detect this species.
Tuolumne button celery *Eryngium pinnatisectum*	-	-	1B.2	Vernal pools and similar wet habitat in the hills and grasslands; 230 to 3000 feet elevation. Blooms May – August.	Not expected to occur. The project site is well below the elevation range for this species; moreover, surveys conducted during the blooming period did not detect this species.

Notes: USFWS = U.S. Fish and Wildlife Service; CDFW = California Department of Fish and Wildlife; CRPR = California Rare Plant Rank; CNDDB = California Natural Diversity Database; ESA = Federal Endangered Species Act; CESA = California Endangered Species Act

[1] Legal Status Definitions

U.S. Fish and Wildlife Service:
E Endangered (legally protected)
T Threatened (legally protected)
California Department of Fish and Game:
E Endangered (legally protected)

California Rare Plant Ranks:
1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
2 Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
CRPR Extensions:
.1 Seriously endangered in California (>80% of occurrences are threatened and/or high degree and immediacy of threat)
.2 Fairly endangered in California (20 to 80% of occurrences are threatened)

[2] Potential for Occurrence Definitions
Not expected to occur: Species is unlikely to be present on the project site due to poor habitat quality, lack of suitable habitat features, or species not detected by surveys during blooming period.
Could occur: Suitable habitat is available on the project site; however, there are little to no other indicators that the species might be present.
Sources: Bargas 2018, CDFW 2018, CNDDB 2018, CNPS 2018

No special-status plant species were found on the project site. Biological surveys for special-status plant species were conducted in May and August of 2018 and did not detect any special-status plants.

SPECIAL-STATUS WILDLIFE

Table BR-2 provides a list of the special-status wildlife species that have been documented within the CNDDB nine-quadrangle search area and USFWS IPaC results for Sacramento County. The table describes their regulatory status, habitat, and potential for occurrence on the project site.

Table BR-2: Special-Status Wildlife and their Potential to Occur on the Project Site

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Invertebrates				
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	T	–	Elderberry shrubs below 3,000 feet in elevation, typically in riparian habitats. Found in stems measuring 1 inch or greater at ground level.	Not expected to occur. The project site does not contain elderberry shrubs, which are the sole hosts for this species.
Vernal pool fairy shrimp *Branchinecta lynchi*	T	–	Vernal pools and other seasonal wetlands in valley and foothill grasslands. Tends to occur in smaller wetland features (less than 0.05 acre in size) (USFWS 1994).	Not expected to occur. The study area does not provide suitable habitat for vernal pool invertebrates and is perennially inundated; moreover, the pond is dominated by American bullfrogs and mosquito fish. The nearest documented occurrence is located seven miles east of the project site.
Vernal pool tadpole shrimp *Lepidurus packardi*	E	–	Vernal pools and other seasonal wetlands in valley and foothill grasslands that pond for sufficient duration to allow the species to complete its life cycle. Typically found in ponds ranging from 0.1 to 80 acres in size (USFWS 1994).	Not expected to occur. The study area does not provide suitable habitat for vernal pool invertebrates and is perennially inundated; moreover, the pond is dominated by American bullfrogs and mosquito fish. The nearest documented occurrence is located seven miles east of the project site.
Amphibians and Reptiles				
California red-legged frog *Rana draytonii*	T	SC	Inhabits ponds, slow-moving creeks, and streams with deep pools that are lined with dense emergent marsh or shrubby riparian vegetation. Submerged root masses and undercut banks are important habitat features for this species.	Not expected to occur. No breeding habitat for this species is present on the project site The site is surrounded by suburban development and the species is considered extirpated from the Sacramento Valley floor.
California tiger salamander *Ambystoma californiense*	T	T	Vernal pools and seasonal wetlands with a minimum 10-week inundation period and surrounding uplands, primarily grasslands, with burrows and other belowground refugia (e.g., rock or soil crevices).	Not expected to occur. The study area does not provide suitable habitat for this species. The presence of American bullfrogs makes it highly unlikely that a viable California tiger salamander population could successfully breed in the pond. Moreover, the lack of rodent burrows in the surrounding upland habitat means that summer and fall sheltering habitat is minimal. The nearest documented occurrence is 4.4 miles northeast of the project site.
Giant garter snake *Thamnophis gigas*	T	T	Slow-moving streams, sloughs, ponds, marshes, inundated floodplains, rice fields, and irrigation/drainage ditches on the Central Valley floor with mud bottoms, earthen banks, emergent vegetation, abundant small aquatic prey and absence	Not expected to occur. No suitable habitat occurs on or immediately adjacent to the project site and the project site is located over over a half-mile from Laguna and Badger Creeks. The nearest known occurrence is 3.5 miles southeast of the site at Laguna Creek

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
			or low numbers of large predatory fish. Also require upland refugia not subject to flooding during the snake's inactive season.	(south).
Western pond turtle *Emys marmorata*	–	SC	Forage in ponds, marshes, slow-moving streams, sloughs, and irrigation/drainage ditches; nest in nearby uplands with low, sparse vegetation.	Not expected to occur. The project site does not provide suitable aquatic or upland habitat for this species; No suitable habitat occurs on or immediately adjacent to the project site and the project site is located over over a half-mile from Laguna and Badger Creeks, which is outside of the typical upland distance from aquatic habitat. The two closest known occurrences are approximately four miles from the project site.
Western spadefoot *Spea hammondii*	–	SC	Vernal pools and other seasonal ponds with a minimum three-week inundation period in valley and adjacent foothill grasslands.	Not expected to occur. The pond on the site is perennially inundated.
Birds				
Western burrowing owl *Athene cunicularia* (burrow sites)	–	SC	Nests and forages in grasslands, agricultural lands, open shrublands, and open woodlands with existing ground squirrel burrows or friable soils. Suitable burrow sites consist of short, herbaceous vegetation with only sparse cover of shrubs or taller herbs (Shuford and Gardali 2008: 221).	Not expected to occur. The lack of rodent burrows on-site rules out burrowing owls being present on the site. There are three known occurrences within five miles of the project site.
Song sparrow (Modesto population) *Melospiza melodia*	–	SC	Emergent freshwater marsh dominated by tules, and cattails; willow riparian scrub; valley oak riparian woodland with dense understory; and along vegetated irrigation canals and levees.	Not expected to occur. Project site does not contain suitable habitat.
Swainson's hawk *Buteo swainsoni*	–	T	Forages in grasslands and agricultural lands; nests in riparian and isolated trees.	Could occur. Trees on the project site may be used for nesting. There are 19 known occurrences within 5 miles of the project site. Further discussion below.
Tricolored blackbird *Agelaius tricolor* (nesting colony)	–	SC	Forages in agricultural lands and grasslands; nests in marshes, riparian scrub, and other areas that support cattails or dense thickets of shrubs or herbs. Requires open water and protected nesting substrate, such as flooded, spiny, or thorny vegetation (Schuford and Gardali 2008: 439).	Not expected to occur. The site contains suitable vegetation for tricolored blackbirds; however, the ponded habitat is too small to support a typical breeding colony. Furthermore, the presence of the more aggressive and territorial red-winged blackbird in the pond suggests that colonization and nesting by tricolored blackbirds is highly unlikely. There are 27 known occurrences are located within 5 miles of the project site. Further discussion below.
Common yellowthroat *Geothlypis trichas sinuosa*	-	SC	Breeding habitat typically found in woody swamp, brackicsh marsh, and freshwater	Not expected to occur. Project site does not contain suitable habitat.

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
			marsh (Foster 1977).	
Yellow warbler *Dendroica petechia*	-	SC	Riparian vegetation (shrubs and trees) in close proximity to water along streams and in wet meadows (Lowther et al. 1999).	Not expected to occur. Project site does not contain suitable habitat.

Note: CNDDB = California Natural Diversity Database; USFWS = U.S. Fish and Wildlife Service

[1] Legal Status Definitions

Federal:
E Endangered (legally protected)
T Threatened (legally protected)
D Delisted

State:
D Delisted
FP Fully protected (legally protected)
SC Species of special concern (no formal protection other than CEQA consideration)
E Endangered (legally protected)
T Threatened (legally protected)

[2] Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present on the project site due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

Could occur: Suitable habitat is available on the project site; however, there are little to no other indicators that the species might be present.

Known to occur: The species, or evidence of its presence, was observed on the project site during project surveys, or was otherwise documented.

Source: Foothill 2015; CNDDB 2016, CDFW 2016b; data compiled by Ascent Environmental in 2016

No special-status wildlife species were found on the project site. Biological surveys for special-status species were conducted in May and August of 2018 and did not detect any special-status wildlife. Based on the results of the CNDDB search, the biological reports provided by Bargas, and the IPaC results, it was determined that two special-status wildlife species could occur on the project site—Swainson's hawk and tricolored blackbird. These two species and applicable mitigation are discussed further in the impacts and analysis section.

Sensitive Habitats

Sensitive habitat types include those that are of special concern to CDFW, or that are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, the Porter-Cologne Act, and/or Section 404 of the Clean Water Act (CWA), as discussed further below. Sensitive habitats may be of special concern to regulatory agencies and conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species.

Waters of the Unites States and Waters of the State

The 0.07-acre pond located in the northeast portion of the project could potentially be considered waters of the US and subject to regulation under Section 404 of the CWA. It also has the potential to be considered waters of the state and subject to regulation under the Porter-Cologne Act.

Study Methods

Studies Performed

A reconnaissance level survey for special-status species, specifically vernal-pool branchiopods and California Tiger Salamander, was performed on May 1, 2018 by Grayson Sandy of Bargus Environmental. Prior to conducting the survey of the site, and per accepted protocol, a thorough review of habitat, special-status species, and jurisdictional wetland databases was performed. The databases queried to obtain background information for the study area included Natural Resource Conservation Service (NRCS) Web Soil Survey, California Department of Fish and Wildlife (CDFW Natural Diversity Database (CNDDB), U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC), USFWS National Wetlands Inventory and USFWS Online Critical Habitat Mapper. The CNDDB data was drawn from the Elk Grove, Sloughhouse, Carbondale, Galt, Clay, Goose Creek, Lodi North, Lockeford, and Clements USGS 7.5-minute quadrangles. The IPaC compiles a list of species from Sacramento County.

A second reconnaissance level survey was conducted by Grayson Sandy of Bargus Environmental on August 21, 2018. This survey focused on evaluating the habitat suitability for nesting tricolored blackbird. The pedestrian survey consisted of walking the perimeter of the pond area with an evaluation of current site conditions, and passive observation to listen for birds in the area and observe potential presence of tricolored blackbirds; investigation of potential habitat that could support tricolored blackbird and identification of wildlife and plants observed.

Regulatory Setting

Federal

Clean Water Act

Section 404 of the CWA requires project proponents to obtain a permit from USACE before performing any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters of the United States, interstate waters, tidally influenced waters, and all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Many surface waters and wetlands in California meet the criteria for waters of the United States.

In accordance with Section 401 of the CWA, projects that apply for a USACE permit for discharge of dredged or fill material must obtain water quality certification from the appropriate regional water quality control board (RWQCB) indicating that the action would uphold state water quality standards.

Federal Endangered Species Act

Pursuant to the federal Endangered Species Act (ESA) (16 U.S.C. Section 1531 et seq.), the US Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) regulate the taking of species listed in the ESA as threatened or endangered. In general, persons subject to ESA (including private parties) are prohibited from "taking" endangered or threatened fish and wildlife species on private property, and from "taking" endangered or threatened plants in areas under federal jurisdiction or in violation of state law. Under Section 9 of the ESA, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS has also interpreted the definition of "harm" to include significant habitat modification that could result in take.

Two sections of the ESA address take. Section 10 regulates take if a non-federal agency is the lead agency for an action that results in take and no other federal agencies are involved in permitting the action. However, if a project would result in take of a federally-listed species and federal discretionary action (even if a non-federal agency is the overall lead agency) is involved (i.e., a federal agency must issue a permit), the involved federal agency consults with USFWS under Section 7 of the ESA. Because this project may involve federal permits, interagency cooperation under Section 7 of the ESA is required. Section 7 of the ESA outlines procedures for federal interagency cooperation to protect and conserve federally listed species and designated critical habitat. Section 7(a)(2) requires federal agencies to consult with USFWS and NMFS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it shall be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. Under the MBTA, "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities." A take does not include habitat destruction or alteration, as long as there is not a direct taking of birds, nests, eggs, or parts thereof. The current list of species protected by the MBTA can be found in Title 50 of the Code of Federal Regulations (CFR), Section 10.13. The list includes nearly all birds native to the United States.

State

California Endangered Species Act

Pursuant to CESA, a permit from CDFW is required for projects that could result in the "take" of a plant or animal species that is listed by the state as threatened or endangered. Under CESA, "take" is defined as an activity that would directly or

indirectly kill an individual of a species, but the CESA definition of take does not include "harm" or "harass," like the ESA definition does. As a result, the threshold for take is higher under CESA than under ESA. Authorization for take of state-listed species can be obtained through a California Fish and Game Code Section 2081 incidental take permit.

California Fully Protected Species

Fully protected species are addressed in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take unless a Natural Community Conservation Plan is prepared.

Protection for Birds and Raptors

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptor (e.g., hawks, owls, eagles, and falcons), including their nests or eggs. Section 3513 of the California Fish and Game Code codifies the federal MBTA.

Porter-Cologne Water Quality Act

Under the Porter-Cologne Act, waters of the state fall under the jurisdiction of the appropriate RWQCB. The RWQCB must prepare and periodically update water quality control plans (basin plans). Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control point and nonpoint sources of pollution to achieve and maintain these standards. The RWQCB's jurisdiction includes federally protected waters, as well as areas that meet the definition of "waters of the state." Waters of the state is defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The RWQCB has the discretion to take jurisdiction over areas not federally protected under Section 401 provided they meet the definition of waters of the state. Actions that affect waters of the state, including wetlands, must meet the RWQCB's waste discharge requirements.

Local

Sacramento County General Plan

The following policies of the Conservation Element of the *Sacramento County 2030 General Plan* (Sacramento County 2011) are applicable to the biological resources that may be affected by the project:

Policy CO-58. Ensure no net loss of wetlands, riparian woodlands, and oak woodlands.

Policy CO-59. Ensure mitigation occurs for any loss of or modification to the following types of acreage and habitat function: vernal pools, wetlands, riparian, native vegetative habitat, and special-status species habitat.

Swainson's Hawk Mitigation Fee Program

CDFW requires that mitigation for foraging habitat be provided within the known foraging radius of a nesting Swainson's hawk. In 1997, in response to the need to mitigate for the loss of Swainson's hawk foraging habitat in Sacramento County, the County Board of Supervisors adopted an ordinance that established a Swainson's Hawk Impact Mitigation Program (Chapter 16.130 of the Sacramento County Code). The Swainson's Hawk Impact Mitigation Program has been amended several times; the latest amendment went into effect December 2009. By adopting the Swainson's Hawk Impact Mitigation Program, the Board of Supervisors found that "the most effective means of mitigation for the loss of suitable Swainson's hawk foraging habitat is the direct preservation, in perpetuity, of equally suitable foraging habitat on an acre-per-acre basis based on the Project's determined acreage impact".

Under the Swainson's Hawk Impact Mitigation Program, only projects which have an impact of less than 40 acres are eligible to pay fees. Projects impacting 40 acres or more of foraging habitat must provide land acceptable to Fish and Game and the County. Land can be provided in fee title or through conservation easement. The Sacramento County Department of Planning and Environmental Review administers the Swainson's Hawk Impact Mitigation Program.

Statewide, CDFW recommends implementing the measures set forth in the Fish and Game Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994) for impacts to Swainson's hawk foraging habitat unless local jurisdictions develop an individualized methodology designed specifically for their location. Sacramento County has developed such a methodology and received confirmation from CDFW in May of 2006 that the methodology is a better fit for unincorporated Sacramento County and should replace the statewide, generalized methodology for determining impacts to foraging habitat.

Swainson's hawk foraging habitat value is greater in large expansive open space and agricultural areas than in areas which have been fragmented by agricultural-residential or urban development. The methodology for unincorporated Sacramento County is based on the concept that impacts to Swainson's hawk foraging habitat occur as properties develop to increasingly more intensive uses on smaller minimum parcel sizes. Therefore, the methodology relies mainly on the minimum parcel size allowed by zoning to determine habitat value.

For the purpose of the methodology, properties with zoning of AG-40 and larger are assumed to maintain 100% of their foraging habitat value and properties with AR-5 zoning and smaller are assumed to have lost all foraging habitat value. The methodology does allow case-by-case analysis for projects with unique characteristics.

South Sacramento Habitat Conservation Plan

The South Sacramento Habitat Conservation Plan (SSHCP) area encompasses 317,656 acres in the southern portion of Sacramento County, including portions of unincorporated Sacramento County (County), Galt, and the southern half of Rancho Cordova (Plan Area). The SSHCP is a regional effort that provides development and infrastructure projects with streamlined, predictable federal and state permitting processes while creating a preserve system to protect habitat, open space, and agricultural lands. The SSHCP provides a more effective process for protecting natural resources as compared to the current project-by-project process of mitigation, which often results in small and isolated preserves. The SSHCP will help ensure the creation of large, interconnected preserves that are sustained in perpetuity by an adequately funded management program.

The project site is located within the SSHCP boundaries, but is located outside of the Urban Development Area. The project would not be a covered activity under the SSHCP.

Significance Criteria

Based on Appendix G of the State CEQA Guidelines, the project could have a significant adverse effect on biological resources if it would:

- have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS;
- have a substantial adverse effect on federally protected waters of the United States, including wetlands, as defined by Section 404 of the CWA through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan; or

- 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; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species.

ISSUES NOT DISCUSSED FURTHER

Implementation of the project is not likely to adversely affect important wildlife corridors. The project site is surrounded on three sides by existing residential development and agricultural fields to the east and does not connect any important habitat areas. Therefore, any potential impacts to wildlife movement and wildlife corridors are not considered significant and are not further addressed in this EIR. Additionally, areas that would be affected by construction on the project site are not known to contain native wildlife nursery sites, such as colonial bird rookeries or bat roosts. Therefore, this issue is not discussed further in this EIR.

Implementation of the project is not likely to adversely affect special-status plant species. Three special-status plant species (Ahart's dwarf rush, Bogg's Lake hedge-hyssop, and Sanford's arrowhead) were identified as having potential to occur on the project site based on the presence of suitable habitat. Focused surveys for listed vernal pool plant species were conducted in May and August of 2018 (blooming period for these species) by Bargas Environmental Consulting, did not detect any vernal pool plant species, and further did not detect any special-status plant species. The project construction will not take place in the ponded area of the parcel and therefore does not have the potential to impact any special-status plant species. Therefore, this issue is not discussed further in this EIR.

While the ponded area could potentially be considered waters of the US and/or state, the project will not result in the loss of these waters as the proposed project site is located over 150 feet from the pond. Therefore this issue is not discussed further in the EIR.

IMPACTS AND ANALYSIS

METHODOLOGY

The following analysis is based on site conditions documented in the biological reports provided by Bargas Environmental (May and August, 2018).

IMPACT: DISTURBANCE OF MIGRATORY BIRDS NESTS

Implementation of the project could adversely affect common migratory birds through disturbance during the breeding season. Loss of active nests of common species would be inconsistent with the MBTA; however, the list of migratory birds includes many common species not otherwise protected under federal, state, or local laws. Loss of active nests of common species during project construction would not substantially reduce the abundance of any species, nor cause the abundance of any species to decline below self-sustaining levels.

Impacts to migratory birds are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-1), impacts to nesting migratory birds will be ***less than significant***.

Impact: Disturbance of 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(18) of FESA 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.

Although there are no CNDDB records of these species on the project site or within 5 miles of the project site, suitable habitat for nesting birds of prey is present. If construction will occur during the nesting season of March 1 to September 15, preconstruction surveys will be required to ensure that construction activities do not agitate nesting birds of prey, potentially resulting in nest abandonment or other harm to nesting success (Mitigation Measure BR-2). If nests are found, the developer is required to contact CDFW 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.

Impacts to nesting birds of prey are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-2), impacts to nesting birds of prey will be ***less than significant***.

Impact: Disturbance of Swainson’s hawk nests

Swainson’s hawk is listed as threatened under CESA and has the potential to nest on the project site. Trees located around the project site provide potential habitat for Swainson’s hawk. Reconnaissance surveys of the site did not detect the species or its

nests and there are no records of these species nesting on the site; however, CNDDB records indicate that 19 sightings of Swainson's hawk have been sighted within 5 miles of the project site. Preconstruction surveys will be required to ensure that construction activities do not agitate nesting hawks, potentially resulting in nest abandonment or other harm to nesting success (Mitigation Measure BR-3).

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 Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994), the mitigation described above will ensure that impacts to nesting Swainson's hawk will be less than significant.

Impacts to Swainson's hawk are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-3), impacts to nesting Swainson's hawk will be ***less than significant***.

Impact: Swainson's Foraging Habitat

As described in the Regulatory Section, properties with zoning of AG-40 and larger are assumed to maintain 100% of their foraging habitat value and properties with AR-5 zoning and smaller are assumed to have lost all foraging habitat value. Per the methodology, the subject parcel contains no foraging habitat value and impacts to Swainson's hawk foraging habitat are considered ***less than significant.***

Impact: Disturbance of tricolored blackbird nests

Tricolored blackbird are listed as a CDFW Species of Special Concern. The ponded area of the property contains suitable habitat for the species and noise generated by construction activity could potentially agitate nesting tricolored blackbirds, potentially resulting in nest abandonment. Focused surveys for the species did not detect tricolored blackbirds or any special-status bird species. The biological report, dated September 17, 2018, found that while the pond contained the appropriate wetland vegetation, its small size (0.07 acres) would make it highly unlikely to support a tricolored blackbird breeding colony.

Tricolored blackbirds are colonial nesting birds, generally nesting very close to one another and often in large groups (UC Davis, 2018). Colonies have been found to vary in size from a minimum of 50 nests to more than 20,000 in one colony (Zeiner et al., 1988-1990).

Survey Results

The study area contains the appropriate wetland vegetation required to support nesting tricolored blackbirds, however, the pond and its freshwater emergent wetland habitat are only 0.07 acres (3,049 square feet) in size making it highly unlikely to support a tricolored blackbird breeding colony. According to Audubon California's web page on tricolored blackbirds, their nesting habitat occurs in, "marsh with cattails or bulrushes, or in willows at water's edge" (UC Davis, 2018). Tricolored blackbirds are colonially nesting birds, generally nesting very close to one another and often in large groups (UC Davis, 2018). Colonies have been found to vary in size from a minimum of 50 nests to more than 20,000 in one colony (Zeiner et al., 1988-1990). Typically, there is one nest per every 21.5 square feet, but additional dense vegetation is needed as a protective buffer against predators (Kyle, 2011). Current research suggests that tricolored blackbirds in some areas of the Central Valley are trending towards more numerous small colonies, where in the past they tended towards very large single colonies (UC Davis, 2018). There are ten CNDDB occurrences for tricolored blackbird colonies located within three miles of this study area, most having been recorded in 2014 and 2015 and concentrated along Twin Cities Rd approximately 1.5 to 3 miles to the southeast. This means that the study area pond could potentially be colonized by birds dispersing from those locations. However, the habitats present at the locations of the CNDDB records are larger continuous freshwater emergent wetlands than what is present in the study area, making these areas more preferable to this species. Further, a colony of red-winged blackbirds (A. phoeniceus) was observed within the pond habitat actively displaying and singing during the 01 May 2018 site survey; none were observed during the August 22, 2018 site survey. The red-winged blackbirds were displaying mating behaviors including singing, wing displays and general territoriality. The presence of the more aggressive and territorial red-winged blackbirds in a pond of this size suggests that colonization and nesting by tricolored blackbirds is highly unlikely.

CNDDB records indicate that there are 10, recorded occurrences within three miles of the project site. Ten of the records were concentrated along Twin Cities Road, approximately 1.5 to 3 miles to the southeast at habitats locations containing much larger continuous freshwater emergent wetlands than what is present at the site, making these larger bodies of water more preferable for the species.

Impacts to tricolored blackbird are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-4), impacts to nesting tricolored blackbirds will be ***less than significant***.

Impact: Loss of special-status vernal pool invertebrates and California Tiger Salamander

Vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardi*) are both federally protected species. Biological surveys for the species were conducted after members of the public voiced concern that the pond could potentially support vernal pool invertebrates and that the project could impact them.

California tiger salamander (*Ambystoma californiense*) are listed as a federally endangered species. The nearest documented occurrence is 4.4 miles northeast of the project site. Biological surveys for the species were conducted after members of the public and a biologist hired by a neighbor to the project site voiced concern that the pond and surrounding upland area was suitable habitat for the species.

Survey Results

The biological report, dated May 7, 2018, found that the study area does not provide suitable habitat for vernal pool invertebrates or California Tiger Salamander. The aquatic wildlife within the pond is dominated by invasive American bullfrogs and planted mosquito fish. The nearest CNDDB occurrence for California tiger salamander is more than three miles east of the study area. The presence of American bullfrogs makes it highly unlikely that a viable California tiger salamander population could successfully breed in this pond. Moreover, the lack of rodent burrows in the surrounding upland habitat means that summer and fall sheltering habitat for California tiger salamanders in minimal.

The wetlands present within the study area do not provide suitable habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp. The nearest CNDDB occurrence for vernal pool fairy shrimp is approximately 0.5 miles west of the study area. The amount of perennial freshwater emergent vegetation present in the pond implies that the pond is likely perennially-inundated, thus providing poor habitat for vernal pool invertebrates. . Impacts to vernal pool invertebrates and California tiger salamander are ***less than significant.***

Mitigation Measures

Mitigation Measure BR-1: Nesting Migratory Birds

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. 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 BR-2: Nesting birds of prey surveys

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 and ground nesting 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 CDFW 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. If no active nests are found during the focused survey, no further mitigation will be required.

Mitigation Measure BR-3: Swainson's hawk nest surveys

If construction, grading, or project-related improvements are to commence between March 1 and September 15, a focused survey, pursuant to CDFW guidelines, for Swainson's hawk nests on the site and within 1/2 mile of the site shall be conducted by a qualified biologist no later than 30 days prior to the start of construction work (including clearing and grubbing). 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 BR-4: Tricolored blackbird nest surveys

If construction activity (which includes clearing, grubbing, or grading) is to commence within 300 feet of the project site between March 1 and July 31, a survey for nesting tricolored blackbirds shall be conducted by a qualified biologist. The survey shall cover all potential nesting habitat on-site and off-site up to a distance of 300 feet from the project boundary. The survey shall occur within 30 days of the date that construction will encroach within 300 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 tricolored blackbird were found during the pre-construction survey, no further mitigation would be required. If an active tricolored blackbird colony is found on-site or within 300 feet of the project site the project proponent shall do the following:

1. Consult with CDFW to determine if project activity will impact the tricolored blackbird colony(s). Implement all protective measures recommended by CDFW. Provide the Environmental Coordinator with written evidence of the consultation or a contact name and number from CDFW.

If no active nests are found during the focused survey, no further mitigation will be required.

12 SUMMARY OF IMPACTS & AND THEIR DISPOSITION

SIGNIFICANT EFFECTS WHICH CANNOT BE AVOIDED

A “significant and unavoidable impact” is an impact that exceeds the defined standards of significance and cannot be eliminated or reduced to a less-than-significant level through the implementation of mitigation measures. **There were no project related impacts determined to be significant and unavoidable.**

POTENTIALLY SIGNIFICANT EFFECTS WHICH COULD BE AVOIDED WITH IMPLEMENTATION OF MITIGATION MEASURES

BIOLOGICAL RESOURCES

The following impacts are potentially significant depending on the presence or absence of the species, which will be determined during pre-construction surveys. If present, mitigation is proposed to reduce the impact to less than significant. If absent, there would be no impact.

NESTING MIGRATORY BIRDS

Implementation of the project could adversely affect common migratory birds through disturbance during the breeding season. Loss of active nests of common species would be inconsistent with the MBTA; however, the list of migratory birds includes many common species not otherwise protected under federal, state, or local laws. Loss of active nests of common species during project construction would not substantially reduce the abundance of any species, nor cause the abundance of any species to decline below self-sustaining levels.

Impacts to migratory birds are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-1), impacts to nesting migratory birds will be ***less than significant***.

NESTING BIRDS OF PREY

Although there are no CNDDB records of these species on the project site or within 5 miles of the project site, suitable habitat for nesting birds of prey is present. If construction will occur during the nesting season of March 1 to September 15, preconstruction surveys will be required to ensure that construction activities do not agitate nesting birds of prey, potentially resulting in nest abandonment or other harm to nesting success (Mitigation Measure BR-1). If nests are found, the developer is required to contact CDFW 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.

Impacts to nesting birds of prey are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-2), impacts to nesting tricolored blackbirds will be ***less than significant***.

Disturbance of Swainson's hawk nests

If any Swainson's hawk nests are found on the project site before construction commences, construction-related disturbance of the nests may result in nest abandonment and mortality of chicks or eggs of these species. Implementation of Mitigation Measure BR-2 would reduce this impact by requiring pre-construction surveys and avoidance of pre-existing, active nests during construction using non-disturbance buffers.

Impacts to Swainson's hawk are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-3), impacts to nesting tricolored blackbirds will be ***less than significant***.

Disturbance of tricolored blackbird nests

No tricolored blackbirds were observed during biological surveys of the site and no suitable nesting habitat was found on-site. CNDDB records did indicate occurrences of the species within a five-mile radius of the project site. While it is considered unlikely to find this species nesting on the project parcel, mitigation has been proposed If construction activities are proposed during the breeding season (March 1 through July 31). Pre-construction surveys shall be conducted within 300 feet of the Project site. If tricolored blackbirds are found nesting within 300 feet of the survey area, the CDFW shall be contacted and appropriate avoidance and impact minimization measures shall be implemented. This may include establishing a buffer or postponing construction until fledging of all nestlings (about July 31). Specific measures cannot be outlined at this time, because the extent and type of measures required are highly situational, depending on distance to the nest, the number of nesting individuals, the type of nesting substrate, and other factors. If no tricolored blackbirds are found during the pre-construction survey, no further mitigation would be required.

Impacts to tricolored blackbird are generally considered less than significant. However if the species is discovered during pre-construction surveys, with the recommended mitigation measures (BR-4), impacts to nesting tricolored blackbirds will be ***less than significant***.

Cultural Resources

Adverse Effects on Important Cultural Resources

Although no National Register of Historic Places- or California Register of Historical Resources-listed or eligible resources, unique archaeological resources, tribal cultural resources, or traditional cultural properties have been documented in the project site, the project is located in a region where significant prehistoric and historic-era cultural resources have been recorded and there remains a potential that undocumented cultural resources could be unearthed or otherwise discovered during ground-disturbing and construction activities. Implementation of Mitigation Measure CR-1 would reduce this impact by ensuring that any undocumented cultural resources or inadvertent discoveries of cultural resources made during construction or ground-disturbing activities would be properly recorded and the historical significance of the resources documented.

Effects Found Not to be Significant

Impacts associated with land use, hydrology and water quality, public services, traffic and circulation, noise, air quality, biological resources, and greenhouse gases and climate change **are considered less than significant**.

Irreversible Environmental Changes

CEQA requires that EIRs assess whether a project would result in significant irreversible changes to the physical environment. The State CEQA Guidelines discuss three categories of significant irreversible changes that should be considered. Each is addressed below. Although the project would require commitment of resources, these environmental changes are not considered significant for the purposes of this analysis.

Growth Inducing Impact

As required by Section 15126.2(d) of the State CEQA Guidelines, an EIR must discuss ways in which a project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, through the stimulation of economic activity within the region, or through the establishment of policies or other precedents that directly or indirectly encourage additional growth. Although growth inducement itself is not considered an environmental effect, it could potentially lead to adverse environmental effects.

The proposed project does not involve the construction of housing, nor will it generate economic growth as the proposed facility will not increase employment by any substantial amount as a result of the project. The surrounding properties are

agricultural-residential and agricultural in nature and are not intended to develop to a high density.

The project would utilize an existing private well, private septic system, existing **SMUD** electrical **facilities** **(overhead 12 kV)** and gas utility connections, and would not require an expansion of public utilities or services. Access to the property is provided by a private road. The facility would not be open to the public and therefore, daily estimate of 10 total trips would not significantly contribute to roadway congestion or significantly impact existing transit facilities.

Based on the foregoing discussion, the project will not induce growth and impacts are considered less than significant.

Areas of Known Controversy

Several residents near the proposed project site have expressed concern over the project. Concerns expressed are related to noise, water quality, endangered species, disease transmission, waste disposal, odor, and traffic. Disagreement with the Planning Director's determination that the proposed project is similar in nature to a kennel, as defined in the Zoning Code, has also been expressed.

Cumulative Impacts

The CEQA Guidelines Section 15355 defines a cumulative impact as "two or more individual effects which, when considered together, are considerable". An individual effect need not itself be significant to result in significant cumulative effects; the impact is the result of the incremental effects of the Project combined with the effects of "other closely related past, present, and reasonably foreseeable probable future projects." CEQA does not define "closely related", but the Code of Federal Regulations (40 CFR 1508.25) indicates that a "closely related" project is one which is automatically triggered by the Project; one which cannot proceed without the Project first proceeding (mutual dependency); one which requires the Project for justification or is an interdependent part of the same action; or one which is a similar action with common timing, geography, and other features.

The requirements for a cumulative analysis are described in CEQA Guidelines Section 15130. A cumulative analysis "need not provide as great detail as is provided for the effects attributable to the project alone." The analysis should focus on analyzing the effects of the project to which other projects contribute, to the extent practical and reasonable. These other projects may be identified either through the provision of a list of cumulative projects, or via a summary of projections contained in an adopted General Plan or an adopted EIR. This EIR uses the latter approach as the project area is outside the Urban Services Boundary, and the general area is rural in nature and not proposed for development within the General Plan.

Land Use

As discussed in the Land Use chapter, the project will not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to a general plan, specific plan or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect, and no cumulative impacts related to land use have been identified.

Hydrology, Drainage, and Water Quality

Drainage from the proposed facility will be directed toward a dedicated septic system that appears to be able meet all setback requirements. The project would not cause violation of a water quality standard or waste discharge requirement and would not result in substantial increases to polluted runoff. The project will not contribute to a cumulatively considerable impact.

Public Services

The project site is located in an existing Agricultural-Residential community that has existing electricity, solid waste, police, and fire services. The proposed facility is similar to other facilities in the surrounding area (e.g. barns and agricultural outbuildings) that are typical of rural agricultural uses. Service providers have reviewed the proposed project and generally had no comment on its impact to service levels. The Public Services chapter concluded that there were no significant impacts to these services and no cumulative impacts related to public services have been identified.

Traffic

DOT typically requires a traffic study when a project will result in more than 100 peak hour trips, or more than 1,000 daily trips. DOT staff (Kamal Atwal, P.E.) provided a trip generation table on September 29, 2017. The project was shown to generate 10 daily trips and one additional truck trip per week, and a traffic study was not required. The Traffic chapter, therefore, concluded that there were no significant impacts, and no cumulative impacts related to traffic were identified.

Air Quality

Project construction and operation of the foreseeable development projects in the County and surrounding areas will result in the generation of ozone precursors and particulate matter. Due to past, present, and future development within the Sacramento Valley Air Basin (SVAB), the SVAB is in nonattainment for ozone and particulate matter. This is considered a significant cumulative impact and all projects in the region would contribute to this impact. Because of this, SMAQMD thresholds are relevant to whether a project has a cumulatively considerable contribution to the existing condition. According to the SMAQMD methodology, if a project's singular contribution can be considered less than significant, than the project's cumulative contribution is not considered cumulatively considerable and therefore, cumulative impacts are less than significant.

The proposed project's construction emissions showed that the proposed project would not exceed SMAQMD's significance thresholds for ozone precursors and PM_{10} during construction and operation. Based on SMAQMD's approach to cumulative impacts, the proposed project would have a less than significant cumulative contribution to construction emissions and operational emissions.

Noise

As discussed in the Noise chapter, the project will not generate noise levels in exceedance of Sacramento County standards and are, therefore, less than significant. Only projects within the direct vicinity would contribute to noise from the project thereby resulting in a cumulative noise impact. The area surrounding the project site is agricultural in nature and typical sounds include noise from farm equipment as well as animals. The noise analysis prepared for the project included the noise generated from this surrounding development. There are no known reasonably foreseeable projects included in this cumulative analysis near vicinity of the project site, and the proposed project is not expected to combine with noise from the surroundings to create a cumulative impact. The proposed project would have a less than significant cumulative contribution to noise impacts.

Cultural Resources

Cumulative development in Sacramento County could significantly impact historic, archaeological, paleontological, geologic, or human resources. The archaeology of prehistoric resources in their original contexts is crucial in developing an understanding of the social, economic, and technological character of the resources. The boundaries of an archaeologically important site could extend beyond property boundaries. As a result, a meaningful approach to preserving and managing cultural research should focus on the likely distribution of cultural resources, rather than on Project or parcel boundaries. The cultural system is represented archaeologically by the total inventory of all sites and other cultural remains. However, proper planning and appropriate mitigation can help to capture and preserve knowledge of such resources and can provide opportunities for increasing understanding of the past environmental conditions and cultures by recording data about any sites discovered and preserving artifacts found. Based on the findings of the records and literature search and field survey, mitigation has been proposed that attempts to document and preserve cultural resources that may be encountered during construction of this project as well as other cumulative projects. This mitigation limits the cumulative contribution of impacts to cultural resources within the County. The project would have a less than significant cumulative contribution to cultural resources impacts.

Greenhouse Gasses and Climate Change

Climate change is by nature a cumulative impact, and the significance threshold is based on cumulative growth projections and the limits which must be set in order to meet reduction targets by the year 2020. To that extent, the cumulative analysis has already been completed. The GHG emissions from the proposed project would not exceed the County's thresholds for energy and mobile source GHG emissions,

therefore the singular impacts from the project were found to be less than significant. The project's contribution to climate change, therefore, is not considered cumulatively considerable.

Biological Resources

The project site was found to have suitable habitat for nesting Swainson's hawk, nesting raptors, and nesting migratory birds. Habitat was found to be unsuitable for vernal pool crustaceans, California tiger salamander, and tricolored blackbird. Surveys of the site did not detect any special-status species on the project site. Mitigation has been included to perform pre-construction surveys for Swainson's hawk, raptors, and migratory birds to ensure they have not nested on-site prior to any ground disturbance or construction activity. Despite concluding that there is no suitable habitat for tricolored blackbird it was noted that occurrences of these species have been documented within five miles of the project site. Mitigation has, therefore, been included to conduct pre-construction surveys for nesting tricolored blackbird.

Singularly, projects are required to mitigate their biological impacts and generally it is determined that such mitigation reduces individual impacts to less than significant. The project will be required to implement protective measures should the aforementioned species be discovered during pre-construction surveys. Therefore, the project is considered to have a **less than significant** cumulative impact.

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14 GLOSSARY OF ACRONYMS/ABBREVIATIONS

AB	Assembly Bill
ADA	American with Disabilities Act
ARB	California Air Resources Board
BMPs	Best Management Practices
CalEEMod	California Emissions Estimator Model
CalFire	California Department of Forestry and Fire Protection
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAAQS	California ambient air quality standards
CAP	Climate Action Plan
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish & Wildlife
CDWR	California Department of Water Resources
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFCs	chlorofluorocarbons
CFR	Code of Federal Regulations
CH_4	methane
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent level
CNPS	California Native Plant Society Inventory
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2E	carbon dioxide equivalent
CPAC	Community Planning Advisory Council
CRHR	California Register of Historic Resources
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB	decibels
dBA	A-weighted sound levels
DOT	County of Sacramento Department of Transportation
DWR	County of Sacramento Department of Water Resources
EIR	Environmental Impact Report
EMD	County of Sacramento Environmental Management Department
EMFAC	Emission Factors Model
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Species Act
FEMA	Federal Emergency Management Agency

GFAS	Global Federation of Animal Sanctuaries
GHG	greenhouse gases
GWP	global warming potential
HAPs	hazardous air pollutants
HFCs	fluorinated gases hyrofluorocarbons
HFPD	Herald Fire Protection District
IPaC	Information for Planning and Consultation
IPCC	Intergovernmental Panel on Climate Change
L_{50}	noise level that is exceeded 50% of a given period
L_{eq}	Equivalent Noise Level
L_{dn}	Day-Night Noise Level
L_{min}	Minimum Noise Level
L_{max}	Maximum Noise Level
L_v	the root mean square velocity expressed in vibration decibels
LDSIR	Land Division and Site Improvement Review
LID	Low Impact Development
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MT	metric tons
MMT	millions metric tons
MPO	Metropolitan Planning Organization
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NESHAP	National Emissions Standards for hazardous air pollutants
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NO_X	oxides of nitrogen
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OEHHA	Office of Environmental Health Hazard Assessment
PER	County of Sacramento Office of Planning & Environmental Review
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric
$PM_{2.5}$	respirable particulate matter with an aerodynamic diameter of 2.5 micrometers
PM_{10}	respirable particulate matter with an aerodynamic diameter of 10 micrometers
PPV	peak particle velocity
PRC	Public Resources Code
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board

SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SEL	Sound Exposure Level
SF_6	sulfur hexafluoride
SIP	State implementation plan
SMAQD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Metropolitan Utility District
SO_2	sulfur dioxide
SSHCP	South Sacramento Habitat Conservation Plan
SSQP	Sacramento Stormwater Quality Partnership
SVAB	Sacramento Valley Air Basin
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
USB	Urban Service Boundary
USFWS	United States Fish & Wildlife Service
UPZ	Conditional Use Permit
VdB	vibration decibels
VMT	vehicle miles traveled
VTE	Vehicle Trips Ends

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16 RESPONSE TO COMMENTS

The Draft Environmental Impact Report (DEIR) was released on March 27, 2019, with a 45-day public review period. The review period for the DEIR closed on May 10, 2010, 2019. Two comment letters were received during the comment period; both of which are included at the end of this chapter. Each comment has been given a numeric designation (e.g. Letter 1) as identified below.

List of Written Comments on the DEIR

1. Central Valley Regional Water Quality Control Board (CVRWQCB), Jordan Hensley, via certified mail (May 3, 2019)

2. Sacramento Municipal Utilities District (SMUD), Nicole Goi, via email (May 8, 2019)

Each DEIR comment letter is detailed below with the text of the submitted comments and a response to each comment. Individual comments addressing separate subjects within each letter are labeled in this chapter based on the letter's numeric designation and comment number (e.g. 1-1). Note that the preface language of the letters is often excluded (where the text consists of salutations and brief descriptions of the commenting organization).

Where changes to the text of the EIR are required because of the comments received, those changes are shown with **bold underline** for text added and ~~strikethrough~~ for text deleted within the pertinent chapter(s).

In some cases, the response to comment is "comment noted." Pursuant to Sections 15088 and 15204 of the CEQA Guidelines, no written responses are provided for those letters or comments that do not address significant environmental issues. While no response to the comment is provided, the comment letters are forwarded to the Board of Supervisors for their consideration.

LETTER 1

Central Valley Regional Water Quality Control Board (CVRWQCB), Jordan Hensley, via certified mail (May 3, 2019)

COMMENT 1-1

The comment letter provides an overview of the CVRWQCB's Basin Plan, the Antidegradation Policy, and permitting requirements that may apply to the project.

RESPONSE 1-1

Comment noted. The comments provided by CVRWQCB are not specific to the Project or the environmental document, but rather provide a broad overview of the regulatory setting that may by applicable to the Project. The project proponent will ensure all applicable permits and regulations are obtained and adhered to as part of project implementation.

LETTER 2

Sacramento Municipal Utilities District (SMUD), Nicole Goi, via email (May 8, 2019)

COMMENT 2-1

It is our desire that the Project EIR will acknowledge any Project impacts related to the following:

- Overhead and or underground transmission and distribution line easements. Please view the following links on smud.org for more information regarding transmission encroachment:
    - https://www.smud.org/en/Business-Solutions-and-Rebates/Design-and-Construction-Services
    - https://www.smud.org/en/Corporate/Do-Business-with-SMUD/Land-Use/Transmission-Right-of-Way
- Utility line routing
- Electrical load needs/requirements
- Energy Efficiency
- Climate Change
- Cumulative impacts related to the need for increased electrical delivery
- The potential need to relocate and or remove any SMUD infrastructure that may be affected in or around the project area

RESPONSE 2-1

The above topical areas have been discussed throughout the EIR as applicable. See the Project Description, Public Services, Greenhouse Gases & Climate Change, and Summary of Impacts and their disposition.

COMMENT 2-2

More specifically, SMUD would like to have the following details related to the electrical infrastructure incorporated into the project description:

- The Project Site has existing overhead 12kV facilities in the south west [sic] corner of the property.

RESPONSE 2-2

The following language has been added to the Project Description chapter:

- **The project site has existing SMUD overhead 12kV facilities in the southwest corner of the property.**

COMMENT 2-3

SMUD would like to be involved with discussing the above areas of interest as well as discussing any other potential issues. We aim to be partners in the efficient and sustainable delivery of the proposed Project. Please ensure that the information included in this response is conveyed to the Project planners and the appropriate Project proponents.

RESPONSE 2-3

This is not a comment on the adequacy of the environmental document. The comment has been forwarded to the applicant, so they can coordinate with SMUD.

CALIFORNIA
Water Boards

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

3 May 2019

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CERTIFIED MAIL
7017 2620 0001 1359 1991

COMMENTS TO REQUEST FOR REVIEW FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, SQUIRREL MONKEY HAVEN PROJECT, SCH#2018072056, SACRAMENTO COUNTY

Pursuant to the State Clearinghouse's 27 March 2019 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Draft Environmental Impact Report* for the Squirrel Monkey Haven Project, located in Sacramento County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases,

the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

> *Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.*
>
> *This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.*

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]
The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit
Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

Clean Water Act Section 404 Permit
If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

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[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Clean Water Act Section 401 Permit – Water Quality Certification
If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

For more information on the Water Quality Certification, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State
If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Waste Discharge Requirements – Discharges to Land
Pursuant to the State Board's Onsite Wastewater Treatment Systems Policy, the regulation of the septic system may be regulated under the local agency's management program.

For more information on waste discharges to land, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_land/index.shtml

Dewatering Permit
If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver) R5-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Risk General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Risk Waiver and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2013-0145_res.pdf

Regulatory Compliance for Commercially Irrigated Agriculture
If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program. There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: https://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/regulatory_information/for_growers/coalition_groups/ or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.

2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100**. Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 11-100 acres are currently $1,277 + $8.53/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory Program, call the Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

Limited Threat General NPDES Permit
If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order.

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:

https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit.

For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4812 or Jordan.Hensley@waterboards.ca.gov.

Jordan Hensley
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

Sent Via E-Mail

May 8, 2019

Tim Hawkins
Office of Planning and Environmental
Sacramento County
827 7th Street, Room 225
Sacramento, CA 95814

Subject: Squirrel Monkey Haven / DEIR / 2018072056

Dear Tim Hawkins,

The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide comments on the Draft Environmental Impact Report (DEIR) for the Squirrel Monkey Haven Project (Project, 2018072056). SMUD is the primary energy provider for Sacramento County and the proposed Project area. SMUD's vision is to empower our customers with solutions and options that increase energy efficiency, protect the environment, reduce global warming, and lower the cost to serve our region. As a Responsible Agency, SMUD aims to ensure that the proposed Project limits the potential for significant environmental effects on SMUD facilities, employees, and customers.

It is our desire that the Project DEIR will acknowledge any Project impacts related to the following:

- Overhead and or underground transmission and distribution line easements. Please view the following links on smud.org for more information regarding transmission encroachment:
  - https://www.smud.org/en/Business-Solutions-and-Rebates/Design-and-Construction-Services
  - https://www.smud.org/en/Corporate/Do-Business-with-SMUD/Land-Use/Transmission-Right-of-Way
- Utility line routing
- Electrical load needs/requirements
- Energy Efficiency
- Climate Change
- Cumulative impacts related to the need for increased electrical delivery
- The potential need to relocate and or remove any SMUD infrastructure that may be affected in or around the project area

More specifically, SMUD would like to have the following details related to the electrical infrastructure incorporated into the project description:

- The Project Site has existing overhead 12kV facilities in the south west corner of the property.

SMUD would like to be involved with discussing the above areas of interest as well as discussing any other potential issues. We aim to be partners in the efficient and sustainable delivery of the proposed Project. Please ensure that the information included in this response is conveyed to the Project planners and the appropriate Project proponents.

Environmental leadership is a core value of SMUD and we look forward to collaborating with you on this Project. Again, we appreciate the opportunity to provide input on this DEIR. If you have any questions regarding this letter, please contact SMUD's Environmental Management Specialist, Ashlen McGinnis at Ashlen.Mcginnis@smud.org or 916.732.6775.

Sincerely,

Nicole Goi
Regional & Local Government Affairs
Sacramento Municipal Utility District
6301 S Street, Mail Stop A313
Sacramento, CA 95817
nicole.goi@smud.org

Cc: Ashlen McGinnis

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. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to a general plan, specific plan or zoning ordinance) 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, Southeast Area Community Plan, 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 consists of the construction of a squirrel monkey sanctuary for the keeping of retired research monkeys, and therefore will neither directly nor indirectly induce substantial unplanned population growth.
b. Displace substantial amounts of existing 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.
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		Though in an area where agricultural uses occur, the project will not substantially interfere with agricultural operations, because kennels are considered a generally compatible use within agricultural and agricultural/residential areas. Assuming compliance with the standards of Animal Care and Regulation, no significant impacts are expected.Please refer to Chapter 3 "Land Use."
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, corridors, or vistas. Furthermore, the facility is a prefacbricated metal structure, akin to many agricultural accessory structures in the area.
b. Substantially degrade the existing visual character or quality of the site and its surroundings?			X		Construction will not substantially degrade the visual character or quality of the project site. Furthermore, the facility is a prefacbricated metal structure, akin to many agricultural accessory structures in the area.
c. 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 occurs outside of any identified public or private airport/airstrip safety zones.
b. Expose people residing or working in the project area to aircraft noise levels in excess of applicable standards?				X	The project occurs outside of any identified public or private airport/airstrip noise zones or contours.
c. Result in a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft?				X	The project does not affect navigable airspace.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
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 water to for facility operations. The project is proposing to use the existing private well. The proposed facility plan estimates 41,000 gallons of water will be used annually (112 gallons per day) for facility needs including monkey drinking water, cleaning, and landscaping. On average, each person in a household uses about 100 gallons of water a day. The project 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. Please refer to Chapter 5 “Public Services” of the EIR.
b. Have adequate wastewater treatment and disposal facilities for full buildout of the project?			X		Septic systems would be required. Refer to Chapter 5 “Public Services” for further discussion.
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. Please refer to Chapter 5 “Public Services” for further discussion.
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 is located outside of the Urban Service Boundaries and would not rely upon public water or public sewage facilities. 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. Please refer to Chapter 4 “Hydrology, Drainage, & Water Quality” of the EIR.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
f. Result in substantial adverse physical impacts associated with the provision of electric or natural gas service?			X		Electricity and natural gas services for the project would be provided by SMUD and PG&E, respectively. The project would increase electricity and natural gas consumption and require new utility connections. These utilities would likely be installed underground, and no offsite extensions would be needed. No significant new impacts would result from utility extension. Please refer to Chapter 5 "Public Services" for further discussion.
g. Result in substantial adverse physical impacts associated with the provision of emergency services?			**X**	~~X~~	The project is not proposing any new residential construction and would not result in the need for additional demand in fire protection or police protection.
h. Result in substantial adverse physical impacts associated with the provision of public school services?				X	The project will not require the use of public school services.
i. Result in substantial adverse physical impacts associated with the provision of park and recreation services?				X	The project will not require park and recreation services.
7. **TRANSPORTATION/TRAFFIC** - Would the project:					
a. Result in a substantial increase in vehicle trips that would exceed, either individually or cumulatively, a level of service standard established by the County?			X		The project will result in minor increases in vehicle trips, but this increase will not cause, either individually or cumulatively, a level of service standard established by the County to be exceeded. Please refer to Chapter 6 "Traffic/Circulation".
b. Result in a substantial adverse impact to access and/or circulation?			X		No changes to existing access and/or circulation patterns would occur as a result of the project. Please refer to Chapter 6 "Traffic/Circulation".
c. Result in a substantial adverse impact to public safety on area roadways?			X		No changes to existing access and/or circulation patterns would occur as a result of the project; therefore no impacts to public safety on area roadways will result. Please refer to Chapter 6 "Traffic/Circulation".

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
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.
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. Compliance with existing dust abatement rules and standard construction mitigation for vehicle particulates will ensure that construction air quality impacts are less than significant. The California Emissions Estimator Model (CalEEMod) was used to analyze ozone precursor emissions; the project will not result in emissions that exceed standards. Please refer to Chapter 7 “Air Quailty” & Chapter 10 “Greenhouse Gases & Climate Change” for further discussions.
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. See Response 8.a.
c. Create objectionable odors affecting a substantial number of people?			X		The project will not generate objectionable odors. Please refer to Chapter 7 “Air Quality” of the EIR.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
9. **NOISE -** Would the project:					
a. Result in exposure of persons to, or generation of, noise levels 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. Please refer to Chapter 8 “Noise” of the EIR.
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). Please refer to Chapter 8 “Noise” of the EIR.
10. **HYDROLOGY AND WATER QUALITY** - Would the project:					
a. Substantially deplete groundwater supplies or substantially interfere with groundwater recharge?			**X**		Private wells would be required to provide water to for facility operations. The project is proposing to use the existing private well. The proposed facility plan estimates 41,000 gallons of water will be used annually (112 gallons per day) for facility needs including monkey drinking water, cleaning, and landscaping. On average, each person in a household uses about 100 gallons of water a day. The project 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. The project will not substantially increase water demand over the existing use. Please refer to Chapter 5 “Public Services” of the EIR.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
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. Please refer to Chapter 4 “Hydrology, Drainage, & Water Quality” of the EIR.
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 site is located within a FEMA “Zone X” area and will not place housing in a FEMA designated floodplain or flood hazard area. Furthermore, the project will not impede or redirect flood flows by placing structures within a 100-year flood hazard area. Please refer to Chapter 4 “Hydrology, Drainage, & Water Quality” of the EIR.
d. Place structures that would impede or redirect flood flows within a 100-year floodplain?				X	The project site is not within a 100-year floodplain.
e. Develop in an area that is subject to 200 year urban levels of flood protection (ULOP)?				X	The project is not located in an area subject to 200-year urban levels of flood protection (ULOP).
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 will not 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.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
g. Create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems?			X		Sacramento County Department of Water Resources placed a condition of approval upon the project, that minimum pad/floor elevations would be required pursuant to the Sacramento County Floodplain Management Ordinance. Compliance with the Floodplain Management Ordinance, Sacramento County Water Agency Code, and the Sacramento County Improvement Standards will minimize any off-site impacts due to drainage from the project site
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. Please refer to Chapter 4 “Hydrology, Drainage, & Water Quality” for a full discussion.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
11. **GEOLOGY AND SOILS** - Would the project:					
a. Expose people or structures to substantial 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.
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.
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	The project is not located on an unstable geologic or soil unit.
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?				X	No known paleontological resources (e.g. fossil remains) or sites occur at the project location.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
12. **BIOLOGICAL RESOURCES** - Would the project:					
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			Refer to Chapter 11 “Biological Resources” for a full discussion of project impacts.
b. Have a substantial adverse effect on riparian habitat or other sensitive natural communities?			X		Refer to Chapter 11 “Biological Resources” for a full discussion of project impacts.
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		Refer to Chapter 11 “Biological Resources” for a full discussion of project impacts.
d. Have a substantial adverse effect on the movement of any native resident or migratory fish or wildlife species?		X			Refer to Chapter 11 “Biological Resources” for a full discussion of project impacts.
e. Adversely affect or result in the removal of native or landmark trees?				X	No native and/or landmark trees occur on the project site, nor is it anticipated that any native and/or landmark trees would be affected by off-site improvement required as a result of the project.
f. Conflict with any local policies or ordinances protecting biological resources?				X	The project is consistent with local policies/ordinances protecting biological resources. Refer to Chapter 11 “Biological Resources” for a full discussion of project impacts.
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.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
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**	~~X~~		No known archaeological resources occur on-site. The Northern California Information Center was contacted regarding the proposed project. A record search indicated that the project site is not considered sensitive for archaeological resources. An archaeological survey was conducted on the project site.
c. Disturb any human remains, including those interred outside of formal cemeteries?		**X**	~~X~~		The project site is located outside any area considered sensitive for the existence of undiscovered human remains. 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.
d. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?		**X**	~~X~~		No requests for tribal notification or consultation were received from California Native American Tribes pursuant to Public Resources Code 21080.3.1(b)(1). Tribal cultural resources were not identified in the project area.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
14. **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. Correspondence from the Global Federation of Animal Sanctuaries (GFAS) states that primate waste is not classified as biohazardous and can be disposed as regular waste by typical commercial waste management contractors. An exception to this would be if a monkey were diagnosed with a zoonotic disease or was involved in biomedical research involving zoonotic diseases, in which case, their veterinarian would determine if the waste should be handled as biohazardous medical waste. GFAS deemed the project's Zoonotic Disease Prevention Plan as "comprehensive and outlines appropriate means to safely dispose of primate waste" (Please refer to Appendix B).
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.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
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 a rural agricultural area of the unincorporated County and is located within a Local Responsibility Area and is not located within a Fire Hazard Severity Zone according to CalFire. Compliance with local Fire District standards and requirements ensures impacts are less than significant.
15. 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 California Emissions Estimator Model (CalEEMod) was used to estimate the greenhouse gas emissions associated with the project. Based on the unique characteristics of the proposed monkey sanctuary; PER staff consulted with SMAQMD staff regarding the appropriate land use classification and variables to use in the model. In addition, the defaults in CalEEMod were changed to reflect the emission anticipated for operation in 2019, and carbon intensity forecasts for the Sacramento Municipal Utility District (SMUD) based on SMUD's 2009 reporting year. The estimated GHG emissions for both facility construction and annual operation are significantly below SMAQMD's thresholds of 1,100 annual metric tons. Please refer to Chapter 10 "Greenhouse Gases & Climate Change" and/or Appendix E for the CalEEMod reports).

SUPPLEMENTAL INFORMATION

LAND USE CONSISTENCY	Current Land Use Designation	Consistent	Not Consistent	Comments
General Plan	Agricultural Residential (AG-RES)	X		
Community Plan	Agricultural-Residential (AR-5)	X		Southeast Area Community Plan
Land Use Zone	General Agriculture (A-5)	X		With approval of the use permit the project is consistent.

INITIAL STUDY PREPARERS

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