PROPOSED

MITIGATED NEGATIVE DECLARATION AND INITIAL STUDY

FOR THE

SNELLING ROAD EVENT CENTER

JUNE 2022

Prepared for:

Merced County Community and Economic Development Department
2222 "M" Street
Merced, CA 95340
(209) 385-7654

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 580-9818

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A Land Use Planning, Design, and Environmental Firm

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PROPOSED MITIGATED NEGATIVE DECLARATION FOR THE SNELLING ROAD EVENT CENTER PROJECT

Lead Agency: Merced County
2222 "M" Street
Merced, CA 95340

Project Title: Snelling Road Event Center

Project Location: The project site (Assessor Parcel Number [APN] 043-080-002) is located at 15080 N. Snelling Road within the unincorporated portion of Merced County near the community of Snelling. Snelling is located along State Route (SR) 59, and is approximately 21 miles east of Turlock and 13 miles north of Merced. The project site encompasses approximately 22 acres located along the Merced River, adjacent east of Snelling Road, and approximately 0.54 miles south of SR 59.

The project site was formerly used for dredge mining operations, and has remnant gravel/rock tailing piles from the dredging activities. The project site currently contains a mobile home that is served by a water well system and an elevated/bermed septic tank and seepage tank. The project site has several ancillary facilities including a shop building, kennel for two dogs, and a gasoline tank. The property has been used seasonally for Halloween festivities, including up to 400 people per day during the fall season. Parking for these festivities has occurred in a flat grassy area that is mowed prior to vehicular parking use by the seasonal visitors. The property has also been used for several private weddings, with wedding activities being held in the same location as the Halloween festivities.

Project Description: The proposed project would include development and operation of an outdoor event and recreation area on the project site. The event area would be available for events such as weddings, fundraisers, receptions, reunions, festivals, and farm-to-table classes. Up to 48 events per year would occur on-site. The proposed outdoor event and recreation area would be located south of the gravel driveway and north of the Merced River. Event facilities would include a 736-square-foot (sf) catering and storage building, 736-sf restroom and changing room building, and 218-sf gazebo. Landscaping (including ornamental landscaping, flower beds, and a garden), fencing, and gravel and paved patio areas would also be provided in the event area.

The project anticipates using the existing parking area for event parking. This parking area will remain earthen and vegetated (grass), but is anticipated to be graded initially to ensure it is level. There is a possibility that the parking area would be graveled to create an all-weather surface. If left as vegetated, the applicant will mow the parking area prior to events, if graveled there is very little maintenance anticipated other than adding some additional gravel and leveling every five to ten years.

The project site is designated Agricultural by the 2030 Merced County General Plan. The proposed project is generally consistent with the land use designation for the site. The project site is zoned Exclusive Agriculture (A2) by the County. Recreational events and weddings are conditionally permitted within the A2 Zone. As such, the proposed project would require approval of a CUP to allow for the proposed outdoor events.

Utilities infrastructure would include the use of the existing onsite electric from PG&E, existing onsite propane tank to be refilled periodically as needed, a new elevated septic system for the event restrooms, and small earthen ditches to control storm water. Existing public service providers would provide police and fire service to the project.

Findings: In accordance with the California Environmental Quality Act, the County of Merced has prepared an Initial Study to determine whether the proposed project may have a significant adverse effect on the environment. The Initial Study and Proposed Mitigated Negative Declaration reflect the independent judgment of County of Merced staff. On the basis of the Initial Study, the County of Merced hereby finds:

> *Although the proposed project could have a significant adverse effect on the environment, there will not be a significant adverse effect in this case because the project has incorporated specific provisions to reduce impacts to a less than significant level and/or the mitigation measures described herein have been added to the project. A Mitigated Negative Declaration has thus been prepared.*

The Initial Study, which provides the basis and reasons for this determination, is attached and/or referenced herein and is hereby made a part of this document.

_____ _____

Signature Date

Proposed Mitigation Measures:

The following Mitigation Measures are extracted from the Initial Study. These measures are designed to avoid or minimize potentially significant impacts, and thereby reduce them to an insignificant level. A Mitigation Monitoring and Reporting Program (MMRP) is an integral part of project implementation to ensure that mitigation is properly implemented by the County of Merced and the implementing agencies. The MMRP will describe actions required to implement the appropriate mitigation for each CEQA category including identifying the responsible agency, program timing, and program monitoring requirements. Based on the analysis and conclusions of the Initial Study, the impacts of proposed project would be mitigated to less-than-significant levels with the implementation of the mitigation measures presented below.

BIOLOGICAL RESOURCES

Mitigation Measure BIO-1: *The project shall be designed to ensure that setbacks between the proposed improvements and the Merced River and associated riparian habitat are provided. A minimum setback distance of 100 feet shall be provided. Additionally, the project shall implement the following BMPs during construction and operation:*

- *Only passive use within the 100-foot setback is allowed during operation of events. Passive use shall include walking, standing, sitting, and picture taking. Passive use does not include any activity that would involve the use of materials that could litter or otherwise pollute the Merced River (i.e. eating/drinking, paintball events, Halloween events, etc.)*
- *The use of nutrients, pesticides, fuel, or other potential pollutants shall be prohibited within 100 feet of the Merced River.*
- *A qualified biologist shall monitor construction activities to ensure that no resource violations related to the U.S. Clean Water Act (CWA), the California Porter-Cologne Act (PCA), or California Fish and Game Code (FGC) occur.*
- *No grading, site construction, or other disturbance shall occur within 100 feet of the Merced River.*
- *Silt fencing, fiber rolls, or other similar BMP must be installed at the limits of construction, and at least 100 feet away from the Merced River.*
- *No machinery shall operate closer than 100 feet from an aquatic resource.*
- *Machinery shall be checked daily for fuel or oil.*
- *No grading shall occur within aquatic resources setbacks for after 14 days following a storm event or 14 days before the next anticipated storm event.*
- *Graded areas shall be covered with straw, mats, or natural wood chips with no artificial dyes or preservatives, or other erosion control measure within 72 hours of exposure.*
- *On completion of construction, disturbed areas shall be replanted with locally native seed mix distributed through a hydroseed applicator and mixed with a tackifier.*
- *Installed landscaping shall be irrigated with above-ground temporary irrigation equipment and removed once plantings have established and are no longer necessary. Irrigation timing and flow should be gradually reduced to naturally occurring rainfall after the first three months. Landscaping shall be conducted under the direction of a qualified landscape designer or landscape architect.*
- *All construction and erosion control materials shall be removed from the construction site after work is completed. If materials are necessary after construction, contractor or owner's representative shall designate a future removal time.*

Further, the project applicant shall prepare and implement a signage plan that identifies environmentally sensitive areas within the project site (i.e. Merced River). The signage plan is intended to alert guests and employees of areas that should be avoided including the Merced River and the associated riparian habitat. The signs shall be placed on steel posts installed securely to the ground and face toward the event area. The signage shall be designed to limit ground disturbance and sign maintenance to the extent feasible.

Mitigation Measure BIO-2*: The project proponent shall implement the following measures to avoid or minimize impacts on Swainson's hawk:*

- *No more than 30 days before the commencement of construction, a qualified avian biologist shall perform preconstruction surveys for nesting Swainson's hawk and other raptors during the nesting season (February 1 through August 31).*
- *Appropriate buffers shall be established and maintained around active nest sites during construction activities to avoid nest failure as a result of project activities. The appropriate size and shape of the buffers shall be determined by a qualified avian biologist, in coordination with CDFW, and may vary depending on the nest location, nest stage, and construction activity. The buffers may be adjusted if a qualified avian biologist determines it would not be likely to adversely affect the nest. Monitoring shall be conducted to confirm that*

project activity is not resulting in detectable adverse effects on nesting birds or their young. No project activity shall commence within the buffer areas until a qualified avian biologist has determined that the young have fledged or the nest site is otherwise no longer in use.

- *Before the commencement of construction, the project proponent shall provide compensatory mitigation for the permanent loss of Swainson's hawk foraging habitat. Mitigation shall be at the CDFW specified ratios, which are based on distance to nests. The Plan Area's distance to the closest nest falls within the range of "within 5 miles of an active nest tree but greater than 1 mile from the nest tree." As such, the Project shall be responsible for 0.75 acres of each acre of urban development authorized (0-75:1 ratio). The project proponent shall either provide lands protected through fee title acquisition or conservation easement (acceptable to the CDFW) on agricultural lands or other suitable habitats which provide foraging habitat for Swainson's hawk.*

Mitigation Measure BIO-3*: The project proponent shall implement the following measure to avoid or minimize impacts on other protected bird species that may occur on the site:*

- *Preconstruction surveys for active nests of special-status birds shall be conducted by a qualified avian biologist in all areas of suitable habitat within 500 feet of project disturbance. Surveys shall be conducted within 14 days before commencement of any construction activities that occur during the nesting season (February 15 to August 31) in a given area.*
- *If any active nests, or behaviors indicating that active nests are present, are observed, appropriate buffers around the nest sites shall be determined by a qualified avian biologist to avoid nest failure resulting from project activities. The size of the buffer shall depend on the species, nest location, nest stage, and specific construction activities to be performed while the nest is active. The buffers may be adjusted if a qualified avian biologist determines it would not be likely to adversely affect the nest. If buffers are adjusted, monitoring will be conducted to confirm that project activity is not resulting in detectable adverse effects on nesting birds or their young. No project activity shall commence within the buffer areas until a qualified avian biologist has determined that the young have fledged or the nest site is otherwise no longer in use.*

Mitigation Measure BIO-4: *The project proponent shall implement the following measures to avoid or minimize impacts on special-status bat species that may occur on the site:*

- *If removal of trees with suitable roost cavities and/or dense foliage must occur during the bat pupping season (April 1 through July 31), surveys for active maternity roosts shall be conducted by a qualified biologist in trees designated for removal. The surveys shall be conducted from dusk until dark.*
- *If a special-status bat maternity roost is located, appropriate buffers around the roost sites shall be determined by a qualified biologist and implemented to avoid destruction or abandonment of the roost resulting from tree removal or other project activities. The size of the buffer shall depend on the species, roost location, and specific construction activities to be performed in the vicinity. No project activity shall commence within the buffer areas until the end of the pupping season (August 1) or until a qualified biologist conforms the maternity roost is no longer active.*

CULTURAL RESOURCES

Mitigation Measure CLT-1: *If any archaeological resources, paleontological resources, or human remains are discovered during project construction, construction shall be halted within 50 feet of the discovery and the following measures shall be implemented:*

- *If any prehistoric or historic artifacts, or other indications of archaeological resources are found during grading and construction activities, an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, shall be consulted to evaluate the finds and recommend appropriate mitigation measures.*
- *If cultural resources or Native American resources are identified, every effort shall be made to avoid significant cultural resources, with in-place preservation an important goal.*
- *Following the applicable 30-day period, the County will review any preservation and mitigation measures recommended by the consulting archaeologist and California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project, and shall provide direction regarding the preservation and/or mitigation that shall occur. If significant sites cannot feasibly be avoided, appropriate mitigation measures, such as data recovery excavations or photographic documentation of buildings, shall be undertaken consistent with applicable state and federal regulations. This requirement shall be included on any grading or building permits issued for the proposed project.*
- *If human remains are discovered, all work shall be halted immediately within 50 meters (165 feet) of the discovery, the County Coroner must be notified, according to Section 5097.98 of the State Public Resources*

Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.

- *If any fossils are encountered, there shall be no further disturbance of the area surrounding this find until the materials have been evaluated by a qualified paleontologist, and appropriate treatment measures have been identified.*

GEOLOGY AND SOILS

Mitigation Measure GEO-1: *Prior to grading permit issuance, the applicant shall submit a final geotechnical evaluation of the project site that analyzes the potential for lateral spreading, subsidence, and liquefaction or collapse. The report shall identify any on site soil and seismic hazards and provide design recommendations for onsite soil and seismic conditions. The geotechnical evaluation shall be reviewed and approved by the County Director of Public Works, and a qualified Geotechnical Engineer to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design.*

Mitigation Measure GEO-2: *All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the County Director of Public Works, and a qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design.*

Mitigation Measure GEO-3: *Prior to the issuance of a building permit, the project proponent shall submit a Septic Feasibility Study which includes exploration to be conducted to demonstrate the feasibility of the on-site sewage disposal for the proposed project, and that the disposal area is consistent with the sizing requirements identified in the subsequent exploration complies with the County's requirements for an on-site septic system. The Septic Feasibility Study shall be submitted to the Merced County Public Health Department, Environmental Health Division, for review.*

Mitigation Measure GEO-4: *Prior to the issuance of a building permit, the project proponent shall demonstrate to the satisfaction of the Merced County Public Health Department, Environmental Health Division, that the requirements of the County, including conformance with the County Code and the County's On-Site Wastewater Treatment Systems Local Agency Management Program (LAMP) are met and that any recommendations of the Septic Feasibility Study are implemented.*

Mitigation Measure GEO-5: *Prior to the issuance of a building permit, the project proponent shall obtain all required permits and approvals for the construction of the on-site septic system from the Merced County Public Health Department, Environmental Health Division. All required conditions identified through review by the Environmental Health Division shall be incorporated into the final design and construction of the on-site septic system.*

HYDROLOGY AND WATER QUALITY

Mitigation Measure HYD-1: *Prior to the issuance of a building permit, the project proponent shall submit a Storm Drainage Plan which shall be designed and engineered in accordance with the Merced County Department of Public Works Improvement Standards and Specifications, and Chapter 9.53 (Regulation of Stormwater) of the County Code. The Storm Drainage Plan shall be submitted to the Merced County Department of Public Works for review.*

TRIBAL CULTURAL RESOURCES

Implement Mitigation Measure CLT-1

TABLE OF CONTENTS

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INITIAL STUDY CHECKLIST

PROJECT TITLE

Snelling Road Event Center

LEAD AGENCY NAME AND ADDRESS

Merced County
2222 "M" Street
Merced, CA 95340

LEAD AGENCY CONTACT PERSON AND PHONE NUMBER

Cameron Christie, Planner I
Merced County Community and Economic Development Department
2222 "M" Street
Merced, CA 95340
(209) 385-7654 x 4587

PROJECT SPONSOR'S NAME AND ADDRESS

Michael Smith
PO Box 2032
Porterville, CA 93258
(559) 744-9492

PURPOSE OF THE INITIAL STUDY

An Initial Study (IS) is a preliminary analysis which is prepared to determine the relative environmental impacts associated with a proposed project. It is designed as a measuring mechanism to determine if a project will have a significant adverse effect on the environment, thereby triggering the need to prepare an Environmental Impact Report (EIR). It also functions as an evidentiary document containing information which supports conclusions that the project will not have a significant environmental impact or that the impacts can be mitigated to a "Less Than Significant" or "No Impact" level. If there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, the lead agency shall prepare a Negative Declaration (ND). If the IS identifies potentially significant effects, but: (1) revisions in the project plans or proposals would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and (2) there is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment, then a Mitigated Negative Declaration (MND) shall be prepared.

This Initial Study has been prepared consistent with California Environmental Quality Act (CEQA) Guidelines Section 15063, to determine if the proposed Snelling Road Event Center project may have a significant effect upon the environment. Based upon the findings and mitigation measures contained within this report, a MND will be prepared.

PROJECT DESCRIPTION

PROJECT LOCATION AND SETTING

PROJECT LOCATION

The project site (Assessor Parcel Number [APN] 043-080-002) is located at 15080 N. Snelling Road within the unincorporated portion of Merced County near the community of Snelling (Figure 1 and 2). Snelling is located along State Route (SR) 59, and is approximately 21 miles east of Turlock and 13 miles north of Merced. The project site encompasses approximately 22 acres located along the Merced River, adjacent east of Snelling Road, and approximately 0.54 miles south of SR 59.

SITE CONDITIONS

The project site was formerly used for dredge mining operations, and has remnant gravel/rock tailing piles from the dredging activities. The project site currently contains a mobile home that is served by a water well system and an elevated/bermed septic tank and seepage tank. The project site has several ancillary facilities including a shop building, kennel for two dogs, and a gasoline tank. These developed areas are accessed by an existing gravel driveway and gravel roadway off Snelling Road.

The property has been used seasonally for Halloween festivities, including up to 400 people per day during the fall season. Parking for these festivities has occurred in a flat grassy area that is mowed prior to vehicular parking use by the seasonal visitors. The property has also been used for several private weddings, with wedding activities being held in the same location as the Halloween festivities.

The remainder of the site is undeveloped and contains ruderal grasses, scattered trees, and the Merced River (Figure 3). The terrain is predominantly flat with slopes increasing to the northwest and decreasing to the southeast. The project site's elevation ranges between 252 to 241 feet above mean sea level (MSL).

SURROUNDING LAND USES

The project site is surrounded primarily by existing open space areas, agricultural uses, and rural residential land uses. The nearest residence is located approximately 0.36 miles south of the southern site boundary. Downtown Snelling is located approximately 0.95 miles northeast of the site.

PROJECT SUMMARY

The proposed project would include development and operation of an outdoor event and recreation area on the project site. The event and recreation area would require development of a catering and storage building, restroom and changing room building, and gazebo (Figure 4).

The project anticipates using the existing parking area for event parking. This parking area will remain earthen and vegetated (grass), but is anticipated to be graded initially to ensure it is level. There is a possibility that the parking area would be graveled to create an all-weather surface. If left as vegetated, the applicant will mow the parking area prior to events, if graveled there is very little maintenance anticipated other than adding some additional gravel and leveling every five to ten years.

The project would also include some basic landscaping associated with the event area (including ornamental landscaping, flower beds/pots, and a garden), however, it is noted that landscaping will be minimal and focus on the natural environment that is present (i.e., oak trees, grasses, river).

Irrigation and electrical utilities are in place from the current landscaping in the event area. A septic system will be added to serve the event restroom. The septic will be similar to the existing septic system that serves the existing mobile home.

OUTDOOR EVENT AND RECREATION AREA

The proposed outdoor event and recreation area would be located south of the gravel driveway and north of the Merced River. Event facilities would include a 736-square-foot (sf) catering and storage building, 736-sf restroom and changing room building, and 218-sf gazebo. Landscaping (including ornamental landscaping, flower beds, and a garden), fencing, and gravel and paved patio areas would also be provided in the event area.

The event area would be available for events such as weddings, fundraisers, receptions, reunions, festivals, and farm-to-table classes. Up to 48 events per year would occur on-site. The events would primarily take place on weekends between 10:00 AM and 10:00 PM. Amplified noise would be permitted; however, amplified noise would not be permitted after 10:00 PM. The maximum number of guests would be 300. Food and beverages would be provided by caterers or the guests, and no meals would be prepared on-site. Four to six employees would be required to assist with the events.

SITE ACCESS AND CIRCULATION

Access to the project site would be provided from the existing gravel access point off Snelling Road. The gravel driveway would have minor improvements to the surface (i.e., additional gravel, minor leveling), but would largely remain the same as the existing. These types of improvement are largely maintenance improvements commonly performed on driveways on rural properties, and would be anticipated to be performed periodically for the life of the project. It is noted that the property owner has periodically re-graveled and leveled the driveway for their current use as a rural residence.

An unpaved parking area containing 125 parking spaces, including 121 automobile parking spaces and four gravel handicap spaces, would be provided near the gravel access road. Walking paths would also connect the proposed event buildings to the parking lot. Walking paths would be a pervious surface such as gravel, decomposed granite, or dirt.

UTILITIES AND PUBLIC SERVICES

Utilities infrastructure would include the use of the existing onsite electric from PG&E, existing onsite propane tank to be refilled periodically as needed, a new elevated septic system for the event restrooms, and small earthen ditches to control storm water. Existing public service providers would provide police and fire service to the project.

Water and Sewer

The existing water well system would serve the proposed event facilities, including the catering building and restroom building. A new septic system would be provided to serve the restroom building. The septic system would be constructed similar to the existing septic system that serves

the mobile home. This includes a dedicated leach field, septic tank, and mound system with electric pump. Additionally, a grease trap would be provided by the catering and storage building. The existing septic tank and seepage tank located near the existing mobile home would remain as part of the project to serve the new residence once the mobile home is removed.

Storm Drainage

There is a total of 1,690 square feet of new building area for the outdoor event and recreation area, which will add an insignificant amount of impervious surface to the property relative to the total pervious surfaces available. The parking area will remain as an unpaved and pervious surface so there is not a need for any significant storm drainage design. The small amount of drainage that would result from the additional buildings would be controlled by a small drainage ditch system that would be submitted with the building plans. It is not anticipated that any new storm drainage is warranted for the existing access roads or unpaved parking area given they will remain pervious. A full basin or outfall is not necessary for the small amount of impervious surface added to the site.

Other Utilities and Services

Electricity service would be provided by Pacific Gas & Electric. An existing propane tank would be utilized for the new residential structure. Fire services would be provided by the Merced County Fire Department. Police services would be provided by the Merced County Sheriff's Department.

GENERAL PLAN AND ZONING DESIGNATIONS

The project site is designated Agricultural by the 2030 Merced County General Plan (Figure 5). The Agricultural (A) land use designation provides for cultivated agricultural practices which rely on good soil quality, adequate water availability, and minimal slopes. This is the largest County land use designation by area in the County and is typically applied to areas on the valley floor. The minimum lot or parcel size for the Agricultural designation is 40 acres, the maximum number of dwelling units per gross acre is 0.025, and the maximum non-residential floor-area-ratio (FAR) is 0.10. The proposed project is generally consistent with the land use designation for the site; however, the project site is smaller than the minimum lot or parcel size of 40 acres.

The project site is zoned Exclusive Agriculture (A2) by the County (Figure 5). The purpose of the A2 zone is to provide for areas with considerably expanded agricultural enterprises, due mainly to the requirement of large parcels which are more economically suitable to support farming activities. The 160-acre minimum parcel size facilitates farming and ranching operations and a variety of open space functions that are typically less dependent on soil quality and are often connected more with foothill and wetlands locations; grazing and pasture land; and wildlife habitat and recreational areas. Recreational events and weddings are conditionally permitted within the A2 Zone. As such, the proposed project would require approval of a CUP to allow for the proposed outdoor events.

REQUESTED ENTITLEMENTS AND OTHER APPROVALS

Merced County is the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of the CEQA, Section 15050. Implementation of the Snelling Road Event Center project requires approvals from Merced County, including but not limited to:

- Adoption of the MND;
- Adoption of the Mitigation Monitoring and Reporting Program (MMRP);
- Approval of the CUP;
- Approval of development permits.

It is not anticipated that additional regulatory agencies would be involved in issuing permits because the project does not include any significant development or grading activities.

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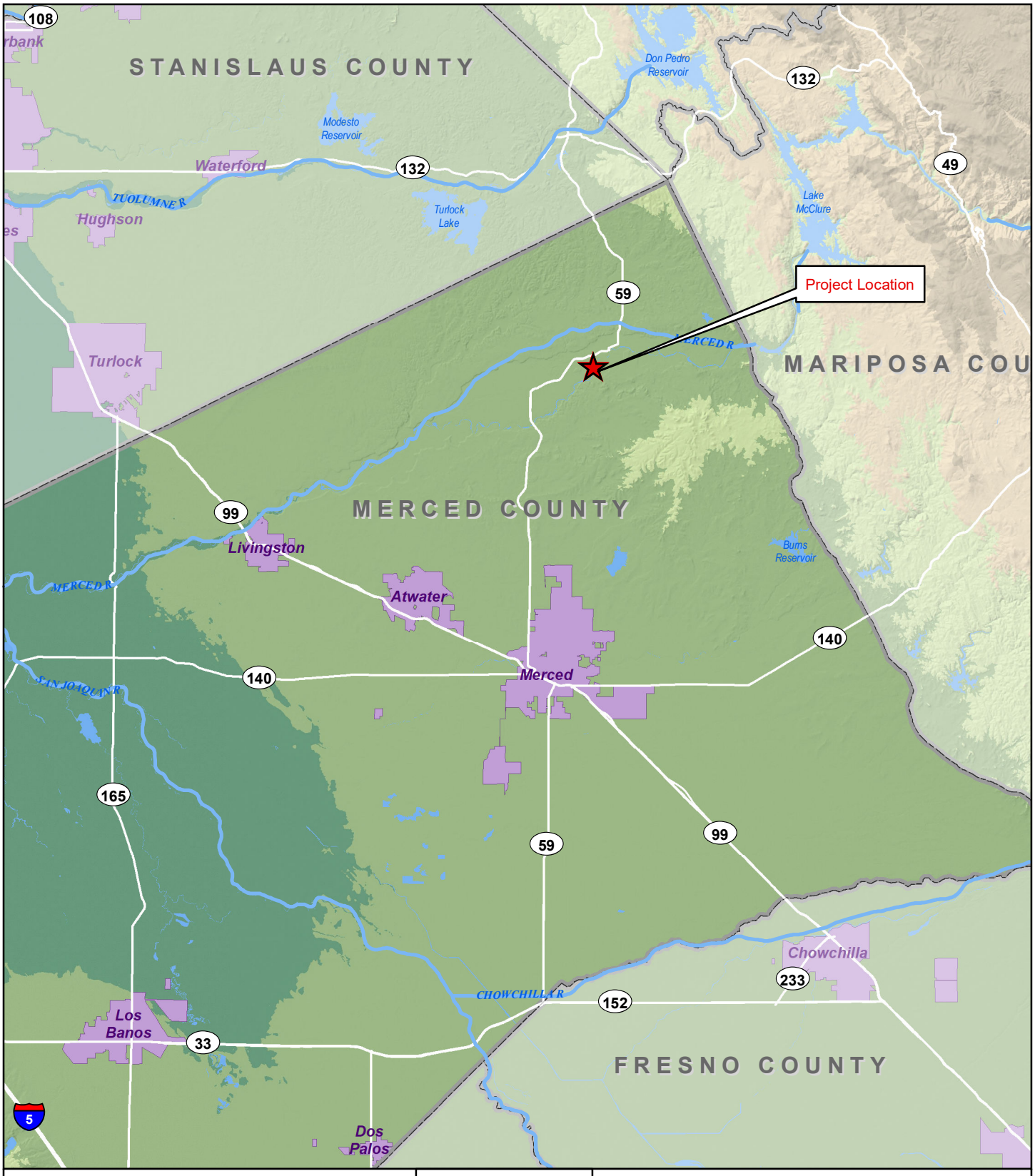

LEGEND

- Project Location
- Incorporated Area
- County Boundary

Sources: California State Geoportal
Map date: October 26, 2020.

N

0 2½ 5
Miles

SNELLING ROAD EVENT CENTER
MERCED COUNTY, CALIFORNIA

Figure 1. Regional Location Map

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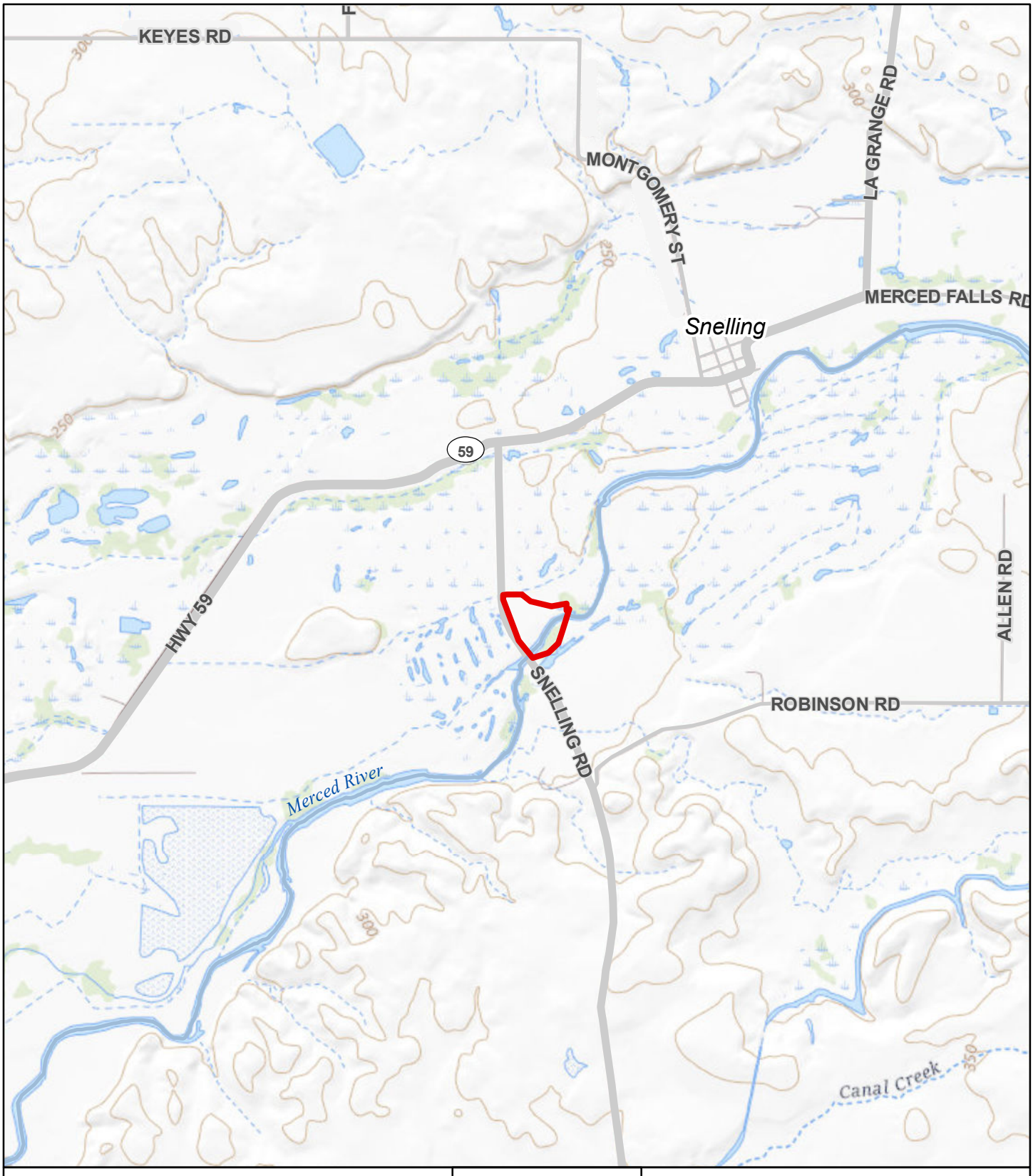

LEGEND

Project Boundary (APN 043-080-002)

0 1,000 2,000
Feet

Sources: Merced County GIS; ArcGIS Online USGS National Map Service. Map date: January 17, 2021.

SNELLING ROAD EVENT CENTER
MERCED COUNTY, CALIFORNIA

Figure 2. Vicinity Map

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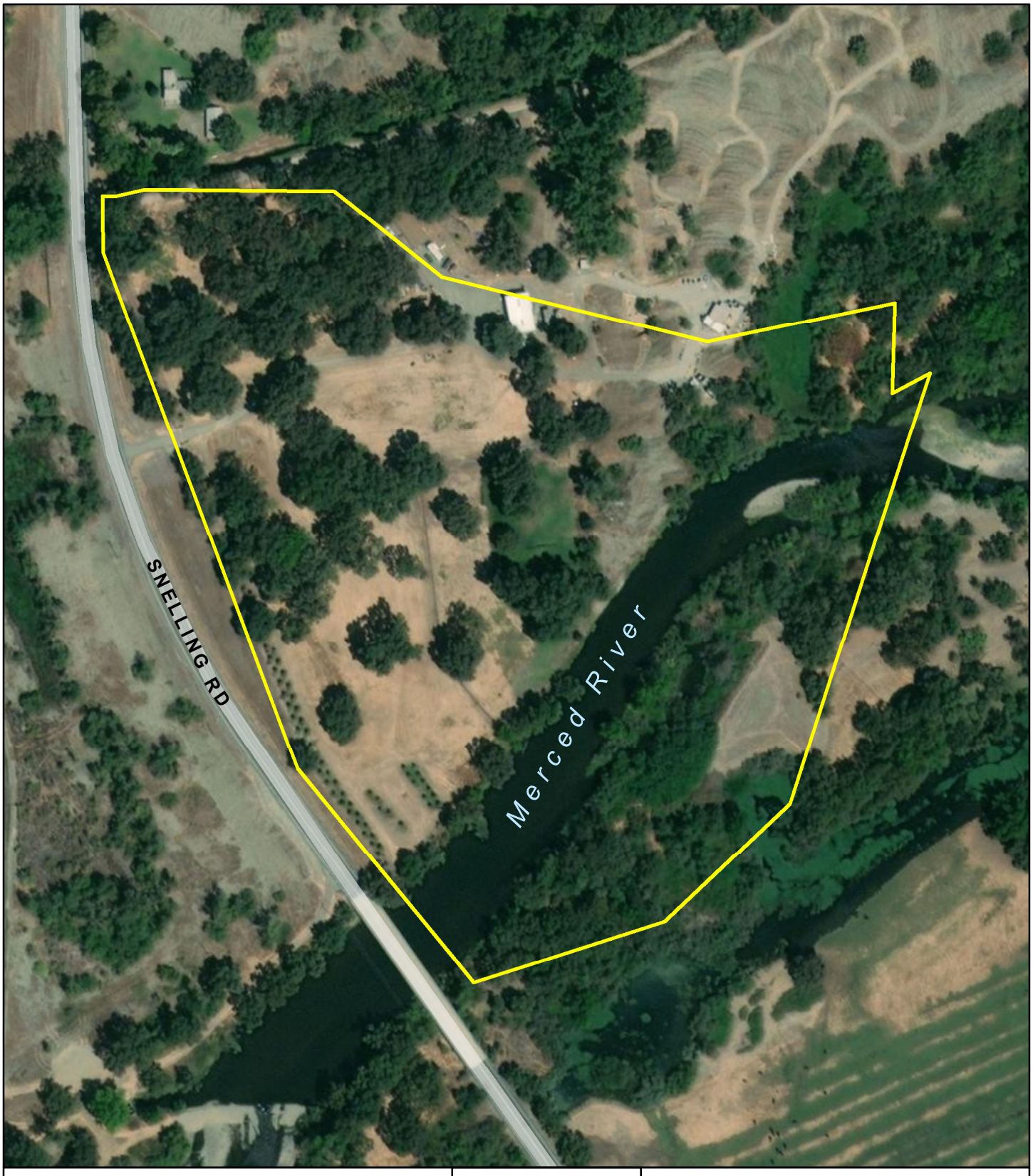

Legend

Project Boundary (APN 043-080-002)

N

0 100 200

Feet

SNELLING ROAD EVENT CENTER
MERCED COUNTY, CALIFORNIA

Figure 3. Aerial View

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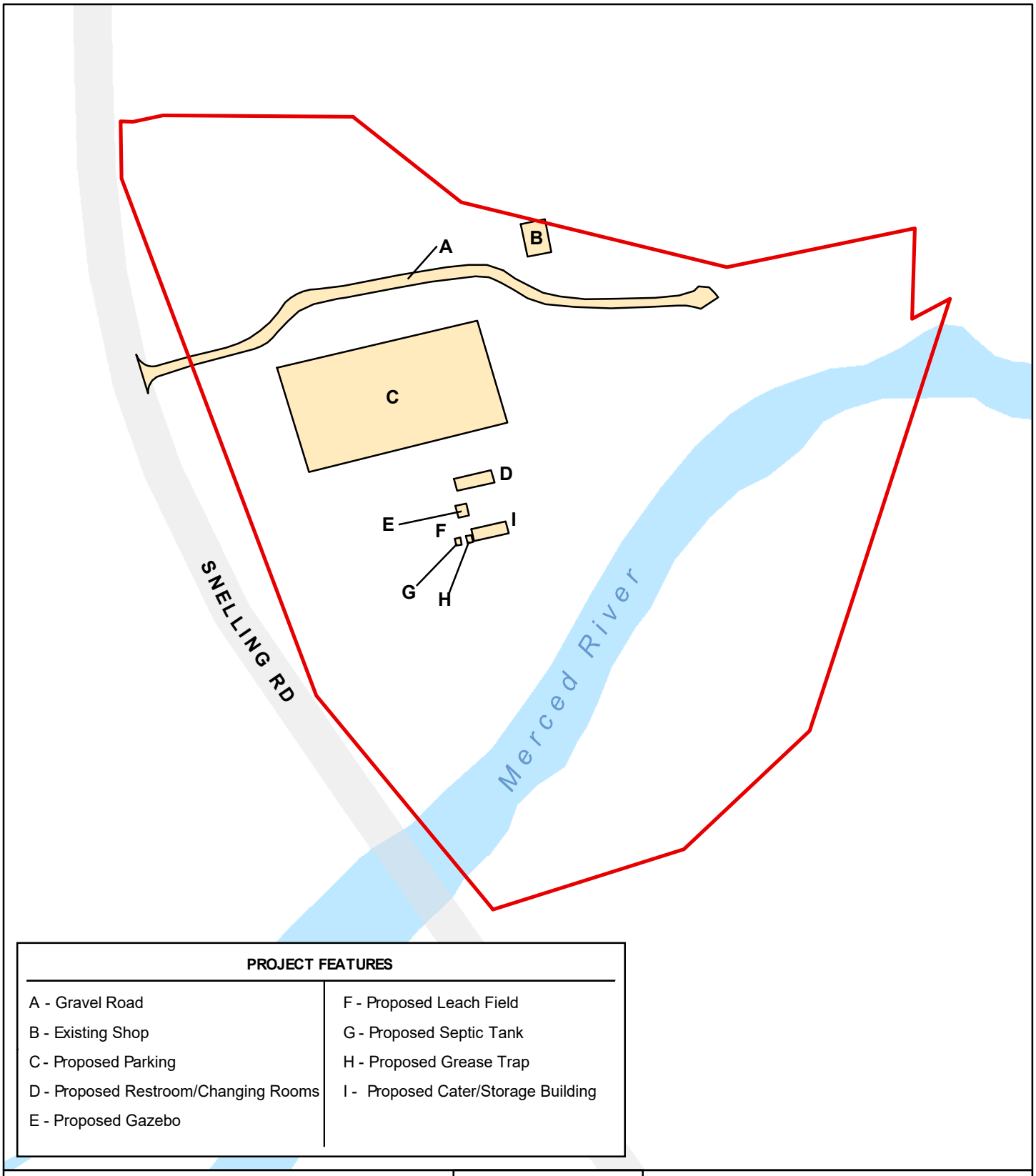

PROJECT FEATURES	
A - Gravel Road	F - Proposed Leach Field
B - Existing Shop	G - Proposed Septic Tank
C - Proposed Parking	H - Proposed Grease Trap
D - Proposed Restroom/Changing Rooms	I - Proposed Cater/Storage Building
E - Proposed Gazebo	

LEGEND

Project Boundary (APN 043-080-002)

Project Feature

Sources: Merced County GIS; ArcGIS Online World Imagery Map Service. Map date: January 20, 2021.

N

0 100 200

Feet

SNELLING ROAD EVENT CENTER
MERCED COUNTY, CALIFORNIA

Figure 4. Site Plan

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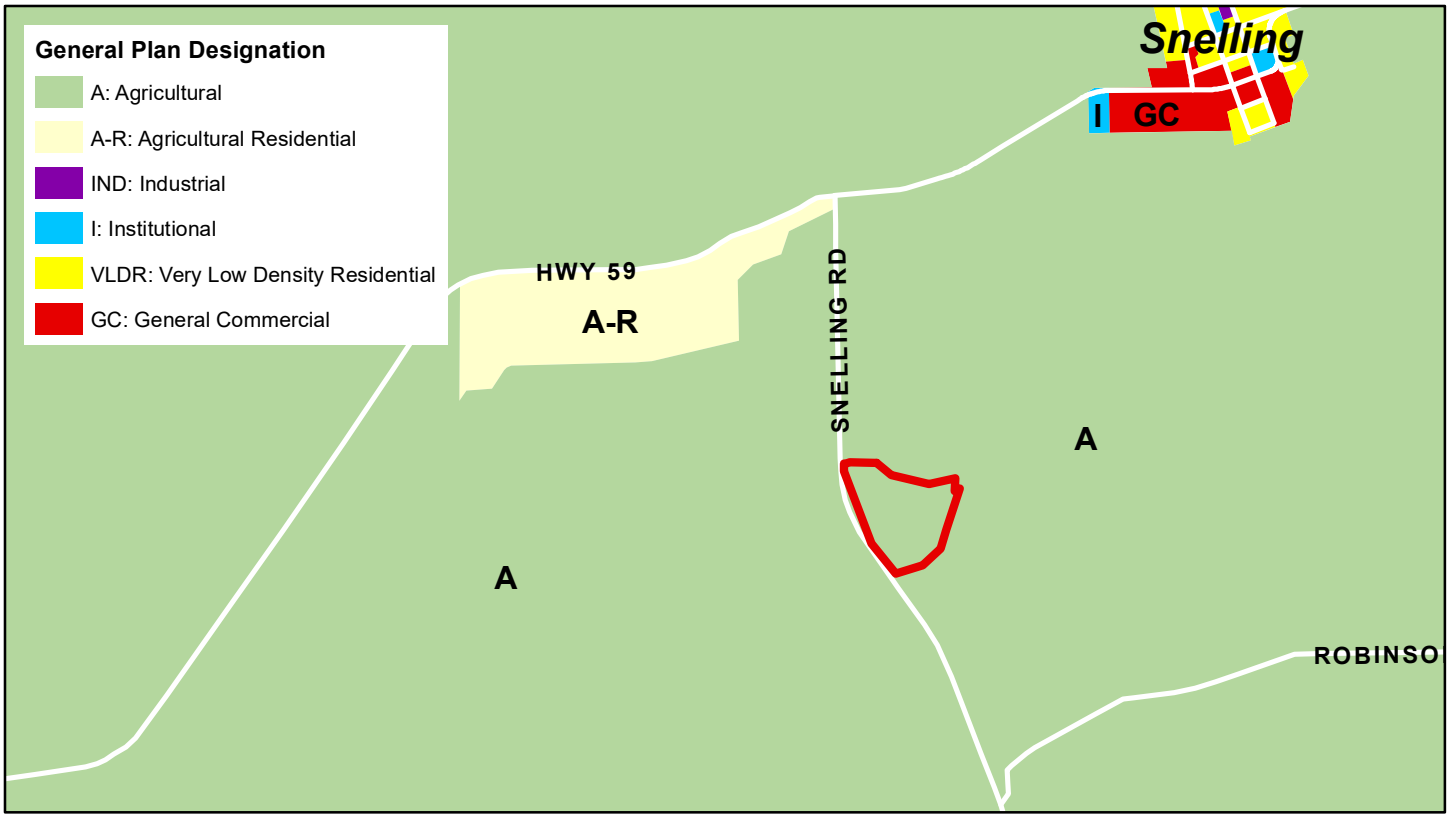

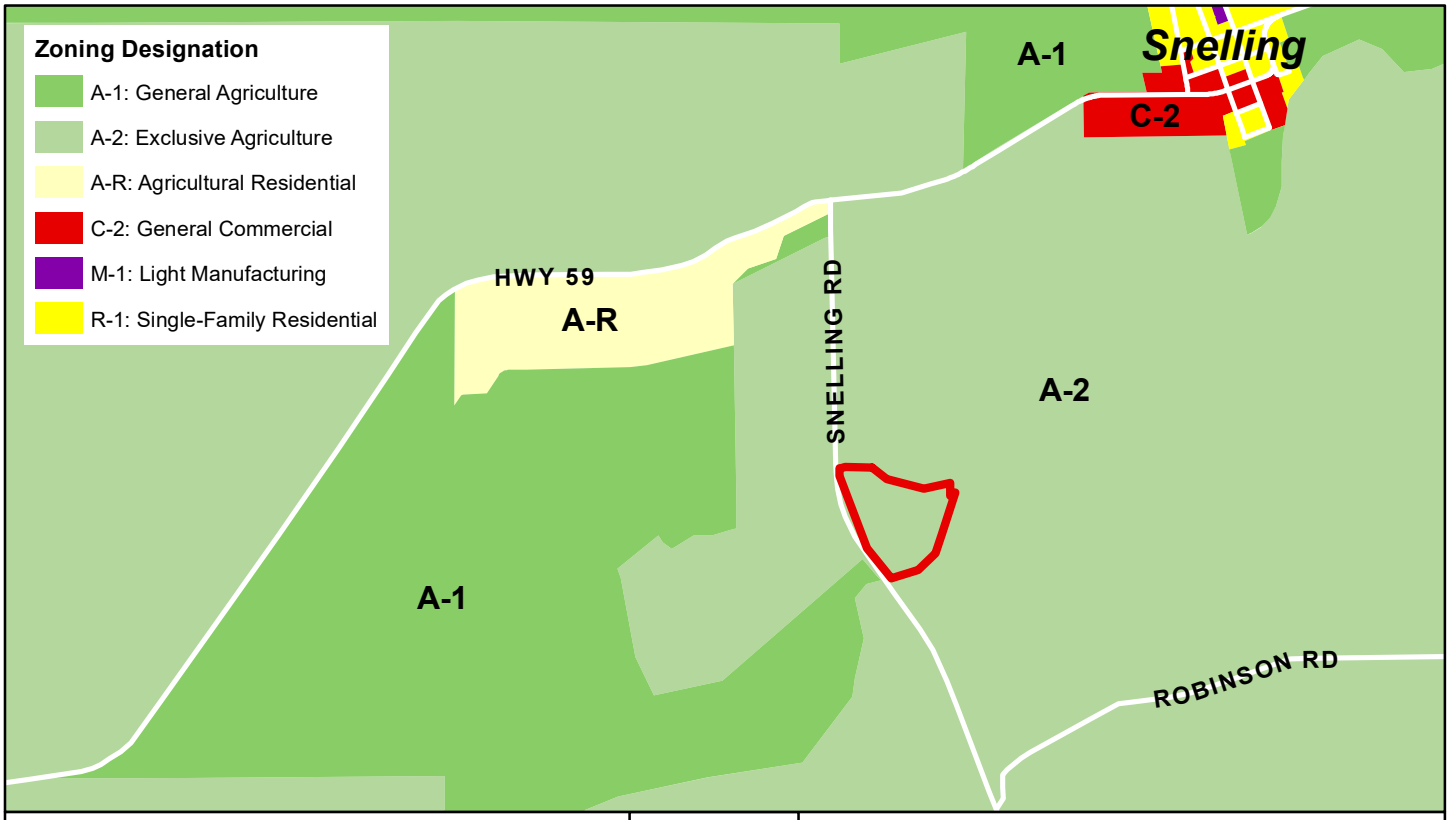

LEGEND

Project Area

N

0 500 1,000

Feet

Sources: Merced County GIS. Map date: January 17, 2021.

SNELLING ROAD EVENT CENTER
MERCED COUNTY, CALIFORNIA

Figure 5. Existing General Plan and Zoning Designations

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

None of the environmental factors listed below would have potentially significant impacts as a result of development of this project, as described on the following pages.

	Aesthetics		Agriculture and Forestry Resources		Air Quality
	Biological Resources		Cultural Resources		Energy
	Geology and Soils		Greenhouse Gasses		Hazards and Hazardous Materials
	Hydrology and Water Quality		Land Use and Planning		Mineral Resources
	Noise		Population and Housing		Public Services
	Recreation		Transportation		Tribal Cultural Resources
	Utilities and Service Systems		Wildfire		Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

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

Signature Date

EVALUATION INSTRUCTIONS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9) The explanation of each issue should identify:
    a) The significance criteria or threshold, if any, used to evaluate each question; and
    b) The mitigation measure identified, if any, to reduce the impact to less than significant.

EVALUATION OF ENVIRONMENTAL IMPACTS

In each area of potential impact listed in this section, there are one or more questions which assess the degree of potential environmental effect. A response is provided to each question using one of the four impact evaluation criteria described below. A discussion of the response is also included.

- Potentially Significant Impact. This response is appropriate when there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries, upon completion of the Initial Study, an EIR is required.
- Less than Significant With Mitigation Incorporated. This response applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
- Less than Significant Impact. A less than significant impact is one which is deemed to have little or no adverse effect on the environment. Mitigation measures are, therefore, not necessary, although they may be recommended to further reduce a minor impact.
- No Impact. These issues were either identified as having no impact on the environment, or they are not relevant to the project.

ENVIRONMENTAL CHECKLIST

This section of the Initial Study incorporates the most current Appendix "G" Environmental Checklist Form contained in the CEQA Guidelines. Impact questions and responses are included in both tabular and narrative formats for each of the 21 environmental topic areas.

I. AESTHETICS

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

RESPONSES TO CHECKLIST QUESTIONS

Responses a): Less than Significant. A scenic vista is an area that is designated for the express purpose of viewing. This includes any such areas designated by a federal, State, or local agency. The Merced County General Plan identifies the following resources as scenic vistas: the Coastal and Sierra Nevada mountain ranges, and the Los Banos Creek, Merced, San Joaquin, and Bear Creek river corridors. SR-152 and I-5 are also designated scenic routes in parts of Merced County.

One scenic vista, the Merced River, is visible from the project site. The project site currently contains a mobile home that is served by a water well system and an elevated/bermed septic tank and seepage tank. The project site has several ancillary facilities including a shop building, kennel for two dogs, and a gasoline tank. These developed areas are accessed by an existing gravel driveway and gravel roadway off Snelling Road. The remainder of the site is undeveloped and contains ruderal grasses, scattered trees, and the Merced River. The property has been used seasonally for Halloween festivities, including up to 400 people per day during the fall season. Parking for these festivities has occurred in a flat grassy area that is mowed prior to vehicular parking use by the seasonal visitors. The property has also been used for several private weddings, with wedding activities being held in the same location as the Halloween festivities.

The proposed project would alter the existing visual character of the site and its surroundings by introducing a 736-sf catering and storage building, 736-sf restroom and changing room building,

218-sf gazebo, and parking area onto the site. The project would also include some basic landscaping associated with the event area (including ornamental landscaping, flower beds/pots, and a garden), however, it is noted that landscaping will be minimal and focus on the natural environment that is present (i.e., oak trees, grasses, river). Although the proposed project would result in the construction of two buildings and operation of an event area up to 48 times per year, construction of these small buildings would not obstruct public views of the Merced River. Additionally, the County General Plan Draft EIR found that impacts related to scenic vistas would be less than significant.

Merced River would not be affected by development of the proposed project. Development of the project site would not impede views of any scenic vistas. Given that proposed project would not affect any designated scenic vistas, the proposed project would have a **less than significant** impact related to scenic vistas or scenic resources.

Response b): Less than Significant. The nearest California Department of Transportation (Caltrans) Officially Designated State Scenic Highway is Interstate 5 (I-5), located approximately 42 miles to the west of the project site, at its closest point. In addition, Caltrans also lists the portion of SR-152 located to the west of I-5 in Merced County as a Caltrans' Officially Designated State Scenic Highway. The proposed project site is not visible from this designated scenic highway. Any scenic resources within these scenic highways would not be affected by the proposed project. Therefore, there would be a **less than significant** impact relative to the potential of the proposed project to damage scenic resources within a scenic highway.

Response c): Less than Significant. The project site currently contains a mobile home that is served by a water well system and an elevated/bermed septic tank and seepage tank. The project site has several ancillary facilities including a shop building, kennel for two dogs, and a gasoline tank. These developed areas are accessed by an existing gravel driveway and gravel roadway off Snelling Road. The remainder of the site is undeveloped and contains ruderal grasses, scattered trees, and the Merced River. The property has been used seasonally for Halloween festivities, including up to 400 people per day during the fall season. Parking for these festivities has occurred in a flat grassy area that is mowed prior to vehicular parking use by the seasonal visitors. The property has also been used for several private weddings, with wedding activities being held in the same location as the Halloween festivities.

The project site is partly visible from one residential parcel adjacent north of the site along Snelling Road; however, due to the rural location of the project site, views of the site from the wider community are generally shielded by existing vegetation and trees. Residents surrounding the project site have views into the project site. Further, existing views from nearby roadways into the project site, including from Snelling Road, are minimal.

The proposed project would alter the existing visual character of the site and its surroundings by introducing a 736-sf catering and storage building, 736-sf restroom and changing room building, 218-sf gazebo, and parking area onto the site. The project would also include some basic landscaping associated with the event area (including ornamental landscaping, flower beds/pots, and a garden), however, it is noted that landscaping will be minimal and focus on the natural environment that is present (i.e., oak trees, grasses, river). Although development of the proposed project would alter the visual character of the project site, which would modify the look of the site, it would not substantially degrade the existing visual character or quality of the site and its surroundings. The project site is fully surrounded by rural uses with very few receptors in the vicinity.

Development of the proposed project on the site would be in accordance with the height and scale requirements of the Merced County Zoning Ordinance and commensurate with the surrounding rural land uses. The proposed project would not substantially degrade the existing visual character and quality of the site, and impacts to visual character would be **less than significant.**

Response d): Less than Significant. The unincorporated portions of the County have levels of light and glare that are typical of suburban and rural-residential areas, and thus limited to moderate starlight visibility. Although there are no large sports facilities or other sources in the nearby vicinity, local recreational facilities (such as baseball fields) can be sources of relatively intensive nighttime lighting in the nearby vicinity. However, most nearby light sources are from street lights along major roads, on-road vehicles, and from residential uses. Daytime glare from structures is typically residential in nature, not commercial.

There is currently limited outdoor lighting associated with the existing buildings and mobile home on the site. As a result, limited nighttime light or daytime glare is currently emitted from the project site. Any new development has the potential to introduce new sources of light and glare. Future development of the project site would include exterior lighting sources along with parking lot lighting.

Merced County Code Section 18.40.070 (Outdoor lighting) provides exterior lighting standards, requiring that exterior lighting is designed and maintained in a manner such that glare and reflections are contained with the boundaries of the project site. Exterior lighting is required to be hooded and directed downward and away from adjoining properties and public rights-of-way. All lighting fixtures are required to be appropriate to the use they are serving, in scale, intensity, and height.

Pursuant to Merced County Code Section 18.40.070 (Outdoor lighting), exterior lighting would be designed and maintained in a manner such that glare and reflections are contained with the boundaries of the project site. Exterior lighting will be hooded and directed downward and away from adjoining properties and public rights-of-way. All lighting fixtures will be appropriate to the use they are serving, in scale, intensity, and height. As a result, the addition of exterior lighting sources within the proposed project site would not be considered a substantial new source of light or glare adversely affecting day or nighttime views in the area.

Development of the proposed project would not incorporate significant sources of glare from proposed project building windows. The 736-sf catering and storage building and 736-sf restroom and changing room building would have limited windows. Additionally, sensitive receptors of any potential glare, such as the building windows, are not located in the project vicinity. Further, the proposed project buildings would generally be largely shielded from neighboring roadways by the existing vegetation and trees. Therefore, any glare from proposed project building windows that could affect nearby motorists would be limited.

Additionally, given the limited number amount of additional traffic that would be generated by the project, additional glare reflected from new vehicles generated by the proposed project would be minimal. The potential for new sources of glare to adversely affect daytime views in the area would be limited. Therefore, this impact would be considered **less than significant**.

II. AGRICULTURE AND FORESTRY RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			X	
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526)?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

RESPONSES TO CHECKLIST QUESTIONS

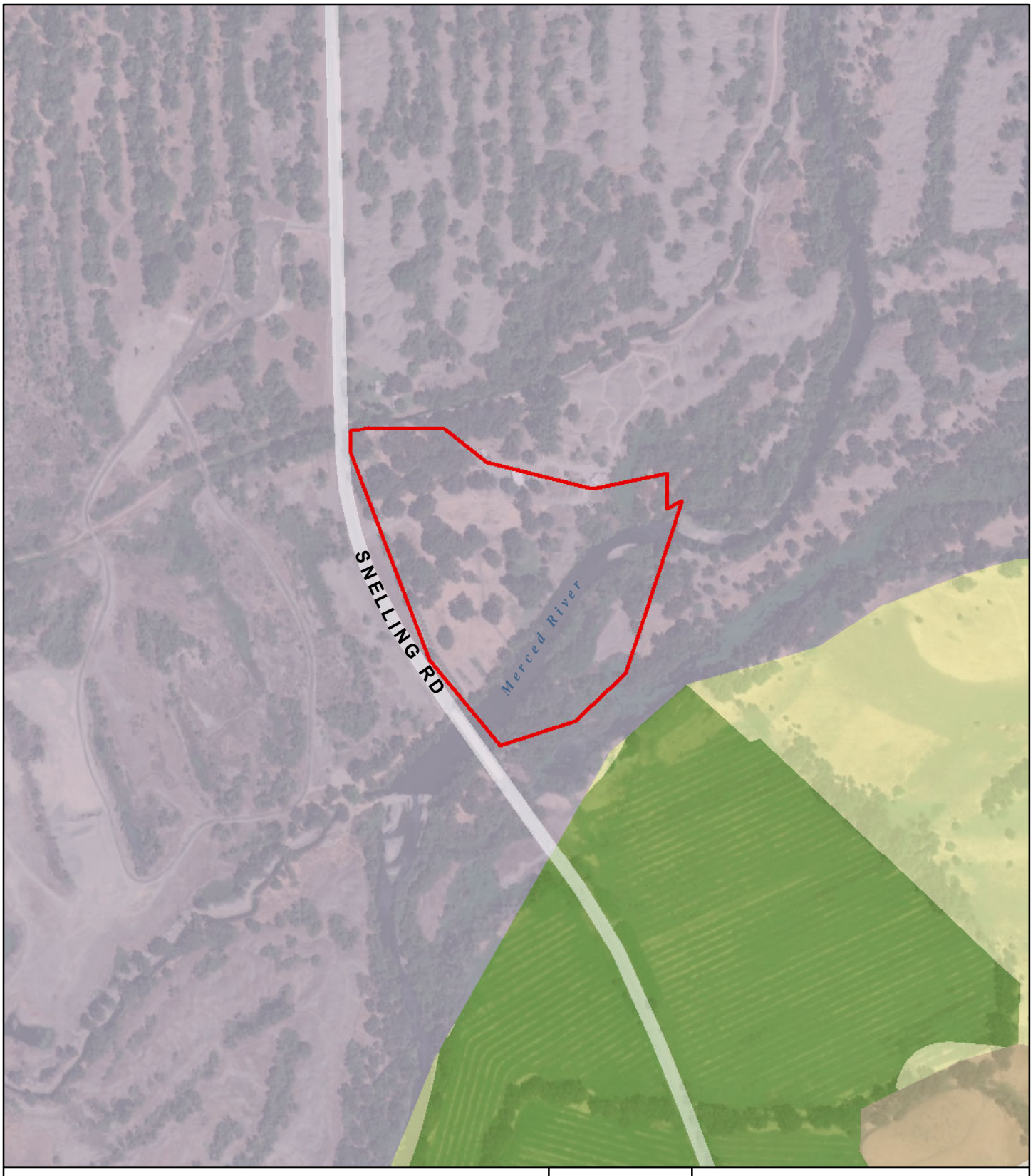
Response a): No Impact. There is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on or adjacent to the project site. The project site is surrounded by rural uses (e.g., agricultural and rural residential) to the north, south, east, and west. The project would not convert any off-site Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. Therefore, there is **no impact** to this topic.

Response b): Less than Significant. The proposed project site is not under Williamson Act contract but is zoned for agricultural use. The project site is zoned A2 by the County. The purpose of the A2 zone is to provide for areas with considerably expanded agricultural enterprises, due mainly to the requirement of large parcels which are more economically suitable to support farming activities. The 160-acre minimum parcel size facilitates farming and ranching operations and a variety of open space functions that are typically less dependent on soil quality and are often connected more with foothill and wetlands locations; grazing and pasture land; and wildlife habitat and recreational areas. Recreational events and weddings are conditionally permitted within the A2 Zone. As such, the proposed project would require approval of a CUP to allow for the proposed outdoor events. The project would not rezone land designated for agricultural purposes. Therefore, the project would have a **less than significant** impact with respect to conflicting with agricultural zoning or Williamson Act contracts.

Responses c-d): No Impact. The project site is not considered forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), and is not zoned Timberland Production (as defined by Government Code section 51104[g]). Therefore, the proposed project would have **no impact** with regard to conversion of

forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

Response e): No Impact. There are no agricultural or forest lands located on, or adjacent to, the project site. The proposed project includes the construction of a 736-sf catering and storage building, 736-sf restroom and changing room building, 218-sf gazebo, and parking area onto the site. The proposed project would not result in the off-site development or conversion of existing agricultural or forest lands. The infrastructure needed to serve the project site would not require the expansion of any infrastructure or roadways that could lead to the indirect conversion of agricultural or forest lands to urban uses. Therefore, the proposed project would result in **no impact** to the existing environment that could individually or cumulatively result in loss of farmland to non-agricultural uses or conversion of forest land to non-forest uses.



LEGEND

- Project Area (19.64 acres)
- Prime Farmland
- Grazing Land
- Farmland of Local Importance
- Vacant or Disturbed Land

Sources: Merced County GIS; California Department of Conservation, Farmland Mapping and Monitoring Program, Merced County 2016; ArcGIS Online World Imagery Map Service. Map date: October 27, 2020.

N

0 200 400

Feet

SNELLING ROAD EVENT CENTER
MERCED COUNTY, CALIFORNIA

Figure 6. Farmlands Map

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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III. AIR QUALITY

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

EXISTING SETTING

The project site is located within the boundaries of the San Joaquin Valley Air Pollution Control District (SJVAPCD). This agency is responsible for monitoring air pollution levels and ensuring compliance with federal and state air quality regulations within the San Joaquin Valley Air Basin (SJVAB) and has jurisdiction over most air quality matters within its borders. Merced County is located in the SJVAB.

Under both the federal and state CAAs, the SJVAPCD regulates air quality in Merced County. The SJVAPCD has jurisdiction over all point and area sources of air emissions except for mobile sources (such as motor vehicles), consumer products, and pesticides. To improve the health and air quality for Valley residents, the SJVAPCD implements air quality management strategies and enforces its Rules and Regulations. The SJVAPCD and the California Air Resources Board (CARB) have joint responsibility for attaining and maintaining the NAAQS and SAAQS in the SJVAB.

The CARB is required to designate areas of the state as attainment, nonattainment, or unclassified for any state standard. An "attainment" designation for an area signifies that pollutant concentrations do not violate the standard for that pollutant in that area. A "nonattainment" designation indicates that a pollutant concentration violated the standard at least once.

The SJVAB is in "severe" nonattainment for the state 1-hour ozone standard; attainment for the federal 1-hour ozone standard[1]; "extreme" nonattainment for the federal 8-hour ozone standard; attainment of the federal PM_{10} standard; nonattainment of the state PM_{10} standard; "serious" nonattainment for the federal $PM_{2.5}$ standard; and nonattainment for the state $PM_{2.5}$ standard (CARB 2015; EPA 2017). Concentrations of all other pollutants meet state and federal standards.

Applicable SJVAPCD Rules and Regulations

SJVAPCD District Rule 9510 (Indirect Source Review) is intended to mitigation a project's impact on air quality through project design elements or by payment of applicable off-site mitigation

[1] On June 30, 2016, the EPA made a determination of attainment of the 1-hour ozone standard in the San Joaquin Valley.

fees. Any applicant subject to District Rule 9510 is required to submit an Air Impact Assessment (AIA) application to the SJVAPCD no later than applying for final discretionary approval, and to pay any applicable off-site mitigation fees.

SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibitions) requires the project proponent to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan, if applicable prior to commencing any earthmoving activities as described in District Rule 8021 – Construction Demolition, Excavation, Extraction, and Other Earthmoving Activities.

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. According to the CEQA Guidelines, an air quality impact may be considered significant if the proposed project's implementation would result in, or potentially result in, conditions, which violate any existing local, State or federal air quality regulations. In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants designated as nonattainment in the area, the SJVAPCD has established significance thresholds associated with development projects for emissions of reactive organic gases (ROG), nitrogen oxide (NO_x), PM_{10}, and $PM_{2.5}$. Air quality emissions would be generated during the construction and operation of the proposed project. The SJVAPCD's *Guidance For Assessing and Mitigating Air Quality Impacts* (GAMAQI) (SJVAPCD, 2015) establishes thresholds for certain criteria pollutants for determining whether a project would have a significant air quality impact.

Construction-Related Emissions

Construction of the project site would result in numerous activities that would generate dust. Grading, leveling, earthmoving and excavation are the activities that generate the most particulate emissions. Impacts would be localized and variable. The initial phase of future project construction would likely involve grading and leveling the portions of the project site where development would occur (i.e., parking lot and event structures) and installation of supporting underground infrastructure, such as septic improvements.

Future development at the project site would be subject to the requirements of SJVAPCD rules and control measures required and enforced by the SJVAPCD under Rule VIII. Rule VIII requires a construction emissions reduction plan which includes the following requirements and measures:

- Properly and routinely maintain all construction equipment, as recommended by manufacturer's manuals, to control exhaust emissions.
- Shut down equipment when not in use for extended periods of time, to reduce exhaust emissions associated with idling engines.
- Encourage ride-sharing and of use transit transportation for construction employees commuting to the project site.
- Use electric equipment for construction whenever possible in lieu of fossil fuel-powered equipment.
- Curtail construction during period of high ambient pollutant concentrations.
- Construction equipment shall operate no longer than eight cumulative hours per day.
- All construction vehicles shall be equipped with proper emission control equipment and kept in good and proper running order to reduce NOx emissions.
- On-road and off-road diesel equipment shall use aqueous diesel fuel if permitted under manufacturer's guidelines.

- On-road and off-road diesel equipment shall use diesel particulate filters if permitted under manufacturer's guidelines.
- On-road and off-road diesel equipment shall use cooled exhaust gas recirculation (EGR) if permitted under manufacturer's guidelines.
- Use of Caterpillar pre-chamber diesel engines or equivalent shall be utilized if economic and available to reduce NOx emissions.
- All construction activities within the project site shall be discontinued during the first stage smog alerts.
- Construction and grading activities shall not be allowed during first stage ozone alerts. (First stage ozone alerts are declared when ozone levels exceed 0.20 ppm for the 1-hour average.)

The above requirements, and other applicable SJVAPCD rules, would be imposed upon any future development within the project site during all phases of construction to reduce the potential for construction-related emissions.

The SJVAPCD has published guidance on determining CEQA applicability, significance of impacts, and potential mitigation of significant impacts, in the SJVAPCD Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI). The SJVAPCD has established thresholds of significance for criteria pollutant emissions, which are based on District New Source Review (NSR) offset requirements for stationary sources. Using project type and size, the SJVAPCD has pre-quantified emissions and determined a size below which it is reasonable to conclude that a project would not exceed applicable thresholds of significance for criteria pollutants. In the interest of streamlining CEQA requirements, projects that fit the descriptions and project sizes provided in the SJVAPCD Small Project Level (SPAL) are deemed to have a less than significant impact on air quality and, as such, are excluded from quantifying criteria pollutant emissions for CEQA purposes.

The SJVAPCD's approach to analysis of construction impacts is that quantification of construction emissions is not necessary if an Initial Study demonstrates that construction emissions would less than significant based on the SJVAPCD SPAL screening levels (SJVAPCD, 2020). The proposed project would only generate a very small number of vehicle trips during its construction and operational phases and would not result in exceedance of the SPAL. The proposed project includes the construction of a 736-sf catering and storage building, 736-sf restroom and changing room building, 218-sf gazebo, and parking area onto the site. As such, the proposed square footage is below all recreational land use categories outlined in the SJVAPCD SPAL. Based on these project characteristics, the proposed project would be deemed to have a less than significant impact on air quality under the SPAL guidelines (SJVAPCD, 2020). As such, the proposed project is excluded from quantifying criteria pollutant emissions.

Operational Emissions

The development of the proposed project within the project site would result in operational emissions, including smog-forming and particulate emissions.

District Rule 9510 requires developers of residential, commercial, and industrial projects to reduce smog-forming (NOx) and particulate (PM_{10} and $PM_{2.5}$) emissions generated by their projects. The Rule applies to projects which, upon full build-out, will include one of the following:

- 50 or more residential units;
- 2,000 square feet of commercial space;

- 25,000 square feet of light industrial space;
- 100,000 square feet of heavy industrial space;
- 20,000 square feet of medical office space;
- 39,000 square feet of general office space;
- 9,000 square feet of educational space;
- 10,000 square feet of government space;
- 20,000 square feet of recreational space; or
- 9,000 square feet of space not identified above.

Project developers are required to reduce:

- 20 percent of construction-exhaust nitrogen oxides;
- 45 percent of construction-exhaust PM_{10};
- 33 percent of operational nitrogen oxides over 10 years; and
- 50 percent of operational PM_{10} over 10 years.

Developers are encouraged to meet these reduction requirements through the implementation of on-site mitigation; however, if the on-site mitigation does not achieve the required baseline emission reductions, the developer will mitigate the difference by paying an off-site fee to the District. Fees reduce emissions by helping to fund clean-air projects in the District. The proposed square footage is below all of the above land use categories. As such, District Rule 9510 does not apply to the project.

As noted previously, the proposed square footage is below all recreational land use categories outlined in the SJVAPCD SPAL. Based on these project characteristics, the proposed project would be deemed to have a less than significant impact on air quality under the SPAL guidelines (SJVAPCD, 2020). As such, the proposed project is excluded from quantifying criteria pollutant emissions.

Conclusion

The proposed project would comply with all SJVAPCD guidance documents, and would be required to implement all District Rules as promulgated by the SJVAPCD. Developers would be required to achieve all applicable SJVAPCD criteria pollutant reduction requirements and/or pay any applicable off-site mitigation fees. Additionally, the proposed project would not violate air quality standards nor contribute to the region's nonattainment status of ozone. Therefore, with compliance with all applicable SVJAPCD rules and regulations, the proposed project would result in **less than significant** air quality impacts.

Response c): Less than Significant. A toxic air contaminant (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 very low concentrations. In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined and for which the state and federal governments have set ambient air quality standards.

The CARB published the *Air Quality and Land Use Handbook: A Community Health Perspective* (2007) to provide information to local planners and decision-makers about land use compatibility issues associated with emissions from industrial, commercial and mobile sources

of air pollution. The CARB Handbook indicates that mobile sources continue to be the largest overall contributors to the State's air pollution problems, representing the greatest air pollution health risk to most Californians. The most serious pollutants on a statewide basis include diesel exhaust particulate matter (diesel PM), benzene, and 1,3-butadiene, all of which are emitted by motor vehicles. These mobile source air toxics are largely associated with freeways and high traffic roads. Non-mobile source air toxics are largely associated with industrial and commercial uses.

The project site is not within 500 feet of any highway or interstate. Therefore, the site lies beyond the CARB-recommended buffer area, and receptors would not be negatively affected by TACs generated on a highway or interstate. In addition, there are no distribution centers, rail yards, ports, refineries, chrome platers, dry cleaners, or gasoline dispensing facilities located in the vicinity of the project site. There are no major stationary sources of toxic air contaminants identified in the vicinity of the development site that could potentially affect future on-site sensitive receptors. Therefore, development of the proposed project would not cause a substantial increase in exposure of sensitive receptors to localized concentrations of TACs. This proposed project would have a **less than significant** relative to this topic.

Response d): Less than Significant. According to the CARB's Handbook, some of the most common sources of odor complaints received by local air districts are sewage treatment plants, landfills, recycling facilities, waste transfer stations, petroleum refineries, biomass operations, autobody shops, coating operations, fiberglass manufacturing, foundries, rendering plants, and livestock operations. The proposed project is not located in the vicinity of any substantial objectionable odor sources such as those mentioned above.

The proposed project, an event location and facilities, is not anticipated to produce any significant objectionable odors at buildout that would affect a substantial number of people. Construction activities associated with the proposed project, such as paving and painting, are likely to temporarily generate objectionable odors. Since odor-generating construction activities would be temporary, and are only likely to be detected by residents closest to the project site, impacts from temporary project-related odors are expected to remain **less than significant** and no mitigation is required.

IV. BIOLOGICAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

EXISTING SETTING

Merced County is renowned for its unique natural resources, including pristine vernal pools, grasslands, unique plant and animal species, large managed wetland preserves, and wildlife-based recreational opportunities. As of 2010, more than 170,000 acres in Merced County were protected in either Federal or State wildlife areas or private conservancies. Merced County is also home to the Merced Grasslands, one of the largest and most intact grassland wetland habitats in the world. While the County's biological resources are abundant, the County faces challenges from urbanization. The proposed project is located within unincorporated Merced County.

The region has a Mediterranean climate that is subject to cool, wet winters (often blanketed with fog) and hot, dry summers. The average annual precipitation is approximately 13.81 inches. Precipitation occurs as rain most of which falls between the months of November through April, peaking in January at 2.85 inches. The average temperatures range from December lows of 37.5 F to July highs of 94.3 F.

The project site was formerly used for dredge mining operations, and has remnant gravel/rock tailing piles from the dredging activities. The project site currently contains a mobile home that is served by a water well system and an elevated/bermed septic tank and seepage tank. The project site has several ancillary facilities including a shop building, kennel for two dogs, and a gasoline tank. These developed areas are accessed by an existing gravel driveway and gravel roadway off Snelling Road.

The property has been used seasonally for Halloween festivities, including up to 400 people per day during the fall season. Parking for these festivities has occurred in a flat grassy area that is mowed prior to vehicular parking use by the seasonal visitors. The property has also been used for several private weddings, with wedding activities being held in the same location as the Halloween festivities.

The remainder of the site is undeveloped and contains ruderal grasses, scattered trees, and the Merced River. The terrain is predominantly flat with slopes increasing to the northwest and decreasing to the southeast. The project site's elevation ranges between 252 to 241 feet MSL.

Vegetation on the project site consists of ruderal and landscaping. Common plant species observed in these areas include: wild oat (*Avena barbata*), rip-gut brome (*Bromus diandrus*), softchess (*Bromus hordeaceus*) alfalfa (*Medicago sativa*), Russian thistle (Salsola tragus), Italian thistle (*Carduus pycnocephalus*), rough pigweed (*Amaranthus retroflexus*), sunflower (*Helianthus annuus*), tarragon (*Artemisia dracunculus*), coyote brush (*Baccharis pilularis*), prickly lettuce (*Lactuca serriola*), milk thistle (*Silybum marianum*), sow thistle (*Sonchus asper*), telegraph weed (*Heterotheca grandiflora*), barley (*Hordeum* sp.), mustard (*Brassica niger*), and heliotrope (*Heliotropium curassavicum*).

Ruderal vegetation found on the project site provides habitat for both common and a few special-status wildlife populations. For example, some commonly observed wildlife species in the region include: black-tail deer (*Odocoileus* hemonus), California ground squirrel (*Spermophilus beecheyi*), California vole (*Microtus californicus*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus),* American kestrel (*Falco sparverius*), white-tailed kite (*Elanus leucurus*), American killdeer (*Charadrius vociferus*), gopher snake (*Pituophis melanoleucus*), garter snake (*Thamnophis species*), and western fence lizard (*Sceloporus occidentalis*), as well as many native insect species. There are also several bat species in the region. Bats often feed on insects as they fly over agricultural and natural areas.

Locally common and abundant wildlife species are important components of the ecosystem. Due to habitat loss, many of these species must continually adapt to using agricultural, ruderal, and ornamental vegetation for cover, foraging, dispersal, and nesting.

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant with Mitigation. The following discussion is based on a background search of special-status species that are documented in the California Natural Diversity Database (CNDDB), the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants, and the U.S. Fish and Wildlife Service's (USFWS) records of listed endangered and threatened species from the IPAC database. The USFWS list is included in Appendix A. The background search was regional in scope and focused on the documented occurrences within the 9-quadrangle region for the project site (approximately a 10-mile radius). Additionally, a field

survey was conducted by Biologist Steve McMurtry in April 2021. No special status species were identified by during the field survey conducted by Steve McMurtry.

Figure 7 shows the results of the CNDDB and IPAC background search within a 9-quadrangle region for the project site. Table BIO-1 provides a list of special-status plants and animals that occur within a 9-quad radius of the project site.

Table BIO-1: Special-Status Plant, Wildlife and Fish Species Which May Occur in Project Area

Name	***Status (Fed/State/ CNPS)***	***Habitat***
	PLANTS	
beaked clarkia *Clarkia rostrata*	--/--/1B.3	Cismontane woodland, valley and foothill grassland. 60-500 meters. April-May.
Colusa grass *Neostapfia colusana*	T/E/1B.1	Vernal pool (adobe, large). 5-200 meters. May-August.
Delta button-celery *Eryngium racemosum*	--/E/1B.1	Riparian scrub (vernally mesic clay depressions). 3-30 meters. June-October.
dwarf downingia *Downingia pusilla*	--/--/2B.2	Valley and foothill grassland (mesic sites), vernal pools. Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 1-490 m. March-May.
eel-grass pondweed *Potamogeton zosteriformis*	--/--/2B.2	Marshes and swamps. Ponds, lakes, streams. 90-2135 m. June-July.
forked hare-leaf *Lagophylla dichotoma*	--/--/1B.1	Cismontane woodland, valley and foothill grassland. Sometimes clay. 190-335 m. April-June.
Greene's tuctoria *Tuctoria greenei*	E/R/1B.1	Vernal pool. Vernal pools in open grasslands. 25-1325 m. May-July.
hairy Orcutt grass *Orcuttia pilosa*	E/E/1B.1	Vernal pools. 25-125 m. May-September.
Hartweg's golden sunburst *Pseudobahia bahiifolia*	E/E/1B.1	Valley and foothill grassland, cismontane woodland. Clay soils, often acidic. Predominantly on the northern slopes of knolls, but also along shady creeks or near vernal pools. 60-170 m. March-April.
Henderson's bent grass *Agrostis hendersonii*	--/--/3.2	Valley and foothill grassland, vernal pools. Moist places in grassland or vernal pool habitat. 65-1030 m. April-June.
Hoover's calycadenia *Calycadenia hooveri*	--/--/1B.3	Cismontane woodland, valley and foothill grassland. On exposed, rocky, barren soil. 60-260 m. July-September.
Hoover's spurge *Euphorbia hooveri*	T/--/1B.2	Vernal pools. Vernal pools on volcanic mudflow or clay substrate. 25-130 m. July-September (October).
Keck's checkerbloom *Sidalcea keckii*	E/--/1B.1	Cismontane woodland, valley and foothill grassland. Grassy slopes in blue oak woodland. On serpentine-derived, clay soils, at least sometimes. 85-505 m. April-May.
Mariposa clarkia *Clarkia biloba ssp. australis*	--/--/1B.2	Chaparral, cismontane woodland. On serpentine. Several sites occur in the foothill woodland/riparian ecotone. 120-1480m. May-July.
Mariposa cryptantha *Cryptantha mariposae*	--/--/1B.3	Chaparral. On serpentine outcrops. 90-825 m. April-June.
Merced monardella *Monardella leucocephala*	--/--/1A	Valley and foothill grassland. Known from riverbeds, moist sandy depressions; requires moist subalkaline sands associated with low elevation grassland. 35-100 m. May-August.
Peruvian dodder *Cuscuta obtusiflora var. glandulosa*	--/--/2B.2	Marshes and swamps (freshwater). Freshwater marsh. 15-280 m. July-October.
pincushion navarretia	--/--/1B.1	Vernal pools. Clay soils within non-native grassland. 45-100 m. April-May.

Name	Status (Fed/State/ CNPS)	Habitat
Navarretia myersii ssp. myersii		
San Joaquin Valley Orcutt grass *Orcuttia inaequalis*	T/E/1B.1	Vernal pool. 10-755 meters. April-September.
Sanford's arrowhead *Sagittaria sanfordii*	--/--/1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0-605 m. May-October (November).
shining navarretia *Navarretia nigelliformis ssp. radians*	--/--/1B.2	Cismontane woodland, valley and foothill grassland, vernal pools. Apparently in grassland, and not necessarily in vernal pools. 60-975 m. April-July.
spiny-sepaled button-celery *Eryngium spinosepalum*	--/--/1B.2	Vernal pools, valley and foothill grassland. Some sites on clay soil of granitic origin; vernal pools, within grassland. 15-1270 m. April-June.
stinkbells *Fritillaria agrestis*	--/--/4.2	Cismontane woodland, chaparral, valley and foothill grassland, pinyon and juniper woodland. Sometimes on serpentine; mostly found in nonnative grassland or in grassy openings in clay soil. 10-1555 m. March-June.
succulent owl's-clover *Castilleja campestris var. succulenta*	T/E/1B.2	Vernal pools. Moist places, often in acidic soils. 20-705 m. (March) April-May.
ANIMALS		
Amphibians and Reptiles		
California tiger salamander *Ambystoma californiense*	T/T	Small ponds, lakes, or vernal pools in grass-lands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy.
foothill yellow-legged frog *Rana boylii*	--/E(SSC)	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.
western spadefoot *Spea hammondii*	--/SSC	Permanent and semi-permanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation. May estivate in rodent burrows or cracks during dry periods.
western pond turtle *Emys marmorata*	--/SSC	Occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests.
Crustaceans and Insects		
California linderiella *Linderiella occidentalis*	--/--	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and total dissolved solids.
Conservancy fairy shrimp *Branchinecta conservatio*	E/--	Vernal pools and seasonally inundated depressions in the Central Valley.
midvalley fairy shrimp *Branchinecta mesovallensis*	--/--	Vernal pools with tea-colored water, most commonly in grass or mud bottomed swales, or basalt flow depression pools in unplowed grasslands.
Monarch butterfly – California overwintering population *Danaus plexippus*	FC/--	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Closed-cone forest.

Name	*Status (Fed/State/ CNPS)*	*Habitat*
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	T/--	Stream side habitats below 3,000 feet throughout the Central Valley. Riparian and oak savanna habitats with elderberry shrubs; elderberries are the host plant.
vernal pool fairy shrimp *Branchinecta lynchi*	T/--	Common in vernal pools; they are also found in sandstone rock outcrop pools.
vernal pool tadpole shrimp *Lepidurus packardi*	E/--	Vernal pools and ephemeral stock ponds.
Crotch bumble bee *Bombus crotchii*	--/E	Found within open grasslands and scrub habitats.
Fish		
Delta smelt *Hypomesus transpacificus*	T/T	Primarily in the Sacramento–San Joaquin Estuary but has been found as far upstream as the mouth of the American River on the Sacramento River and Mossdale on the San Joaquin River; range extends downstream to San Pablo Bay. Occurs in estuary habitat in the Delta where fresh and brackish water mix in the salinity range of 2–7 parts per thousand.
hardhead *Mylopharodon conocephalus*	--/SSC	Resides in low to mid-elevation streams and prefer clear, deep pools and runs with slow velocities. They also occur in reservoirs.
Kern brook lamprey *Lampetra hubbsi*	--/SSC	San Joaquin River system and Kern River. Gravel-bottomed areas for spawning and muddy-bottomed areas where ammocoetes can burrow and feed.
San Joaquin roach *Lavinia symmetricus ssp. 1*	--/SSC	Tributaries to the San Joaquin River from the Cosumnes River south.
steelhead - Central Valley DPS *Oncorhynchus mykiss irideus pop. 11*	T/--	Populations in the Sacramento and San Joaquin rivers and their tributaries.
Mammals		
American badger *Taxidea taxus*	--/SSC	Drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.
pallid bat *Antrozous pallidus*	--/SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.
San Joaquin kit fox *Vulpes macrotis mutica*	T/E	Annual grasslands or grassy open stages with scattered shrubby vegetation.
Townsend's big-eared bat *Corynorhinus townsendii*	--/SSC	Roosts in caves, tunnels, mines, and dark attics of abandoned buildings. Very sensitive to disturbances and may abandon a roost after one onsite visit.
western mastiff bat *Eumops perotis californicus*	--/SSC	Day roosts occur in crevices of cliffs and rocky canyons as well as trees. Roost areas need to be elevated and have a 2 meter drop off for take off area. Can live in chaparral, costal and desert shrubs, and forests and wetland habitats.
western red bat *Lasiurus blossevillii*	--/SSC	Prefers edges that have trees for roosting as well as open areas. Requires water. Feeds on a multitude of insects. Roosts primarily in trees and sometimes in shrubs but less often. Roost 2-40 ft above the ground.

Name	Status (Fed/State/ CNPS)	Habitat
Birds		
bald eagle *Haliaeetus leucocephalus*	--/E(FP)	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.
burrowing owl *Athene cunicularia*	--/SSC	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows.
California horned lark *Eremophila alpestris actia*	--/WL	Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.
ferruginous hawk *Buteo regalis*	--/WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.
least Bell's vireo *Vireo bellii pusillus*	E/E	Nests in willow thickets and other shrubs, primarily in southern California riparian forests.
merlin *Falco columbarius*	--/WL	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.
mountain plover *Charadrius montanus*	--/SSC	Short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms. Short vegetation, bare ground, and flat topography. Prefers grazed areas and areas with burrowing rodents.
northern harrier *Circus hudsonius*	--/SSC	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.
osprey *Pandion haliaetus*	--/WL	Ocean shore, bays, freshwater lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.
Swainson's hawk *Buteo swainsoni*	--/T	Nests in oaks or cottonwoods in or near riparian habitats. Forages in grasslands, irrigated pastures, and grain fields.
tricolored blackbird *Agelaius tricolor*	--/T(SSC)	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. Habitat must be large enough to support 50 pairs. Probably requires water at or near the nesting colony.
yellow-breasted chat *Icteria virens*	--/SSC	Prefer dense deciduous and coniferous forests. Found in shrubby habitats and also along streams, swamps, forests, and upland thickets. Prefer sumac trees, dogwood, and red cedar. Find shelter and food in wetlands and orchards.

NOTES: CNPS = CALIFORNIA NATIVE PLANT SOCIETY

PLANT STATUS EXPLANATIONS:

FEDERAL

E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

T = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

STATE

E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.

R = RARE UNDER THE CALIFORNIA ENDANGERED SPECIES ACT

CALIFORNIA NATIVE PLANT SOCIETY

1B = RARE, THREATENED, OR ENDANGERED IN CALIFORNIA AND ELSEWHERE.

2 = RARE, THREATENED, OR ENDANGERED IN CALIFORNIA, BUT MORE COMMON ELSEWHERE.

3 = A REVIEW LIST – PLANTS ABOUT WHICH MORE INFORMATION IS NEEDED.

4 = PLANTS OF LIMITED DISTRIBUTION – A WATCH LIST

.1 = SERIOUSLY ENDANGERED IN CALIFORNIA (OVER 80% OF OCCURRENCES THREATENED-HIGH DEGREE AND IMMEDIACY OF THREAT).

.2 = FAIRLY ENDANGERED IN CALIFORNIA (20-80% OCCURRENCES THREATENED).

.3 = NOT VERY ENDANGERED IN CALIFORNIA (<20% OF OCCURRENCES THREATENED).

WILDLIFE AND FISH STATUS EXPLANATIONS:

FEDERAL

E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

T = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

D = DELISTED FROM FEDERAL LISTING STATUS.

STATE

E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
FP= FULLY PROTECTED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
WL= WATCH LIST UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
CE = CANDIDATE ENDANGERED SPECIES FOR LISTING UNDER THE STATE ENDANGERED SPECIES ACT.
SSC = SPECIES OF SPECIAL CONCERN IN CALIFORNIA.
SOURCE: CNDDB, 2021.

Special Status Plant Species

Twenty-four (24) species of special-status plants were documented within the 9-quadrangle region for the project site according to the CNDDB and IPAC, including: beaked clarkia (*Clarkia rostrata*), Colusa grass (*Neostapfia colusana*), Delta button-celery (*Eryngium racemosum*), dwarf downingia (*Downingia pusilla*), eel-grass pondweed (*Potamogeton zosteriformis*), forked hare-leaf (*Lagophylla dichotoma*), Greene's tuctoria (*Tuctoria greenei*), hairy Orcutt grass (*Orcuttia Pilosa*), Hartweg's golden sunburst (*Pseudobahia bahiifolia*), Henderson's bent grass (*Agrostis hendersonii*), Hoover's calycadenia (*Calycadenia hooveri*), Hoover's spurge (*Euphorbia hooveri*), Keck's checkerbloom (*Sidalcea keckii*), Mariposa clarkia (*Clarkia biloba ssp. Australis*), Mariposa cryptantha (*Cryptantha mariposae*), Merced monardella (*Monardella leucocephala*), Peruvian dodder (*Cuscuta obtusiflora var. glandulosa*), pincushion navarretia (*Navarretia myersii ssp. Myersii*), San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*), Sanford's arrowhead (*Sagittaria sanfordii*), shining navarretia (*Navarretia nigelliformis ssp. radians*), spiny-sepaled button-celery (*Eryngium spinosepalum*), stinkbells (*Fritillaria agrestis*), and succulent owl's-clover (*Castilleja campestris var. succulenta*).

Field surveys and habitat evaluations were performed in April 2021, which generally coincides with the blooming period for most of the plant species; however, the portion of the site which would be disturbed by site construction was essentially void of natural vegetation based on the current conditions of the project site and there is no possibility for presence of these species.

Special Status Wildlife Species

Invertebrates: There are eight special-status invertebrates that are documented within the 9-quadrangle region for the project site according to the CNDDB and IPAC, including: California linderiella (*Linderiella occidentalis*), Conservancy fairy shrimp (*Branchinecta conservation*), midvalley fairy shrimp (*Branchinecta mesovallensis*), Monarch butterfly – California overwintering population (*Danaus plexippus),* Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus),* vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), and crotch bumble bee (*Bombus crotchii*).

California linderiella is found in seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and total dissolved solids. Conservancy fairy shrimp is found in vernal pools and seasonally inundated depressions in the Central Valley. Midvalley fairy shrimp is found in vernal pools with tea-colored water, most commonly in grass or mud bottomed swales, or basalt flow depression pools in unplowed grasslands. Vernal pool fairy shrimp is a federal threatened invertebrate found in the Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. They are commonly found in vernal pools and in sandstone rock outcrop pools. Vernal pool tadpole shrimp is a federal endangered invertebrate found in vernal pools and stock ponds from Shasta County south to Merced County.

California linderiella, Conservancy fairy shrimp, midvalley fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp are not anticipated to be directly or indirectly affected by any

individual phase or component of the proposed project because there in not appropriate aquatic habitat on the project's development footprint.

The Monarch butterfly (*Danaus plexippus*) is a candidate species and not yet listed or proposed for listing. Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. The black border has a double row of white spots, present on the upper side of the wings. In many regions where monarchs are present, monarchs breed year-round. Individual monarchs in temperate climates, such as eastern and western North America, undergo long-distance migration, and live for an extended period of time. In the fall, in both eastern and western North America, monarchs begin migrating to their respective overwintering sites. This migration can take monarchs distances of over 3,000 km and last for over two months. In early spring (February-March), surviving monarchs break diapause and mate at the overwintering sites before dispersing. The same individuals that undertook the initial southward migration begin flying back through the breeding grounds and their offspring start the cycle of generational migration over again. In California Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts are located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. There are no overwintering sites documented in the regional vicinity; however, this species may occur in the region, and in the Project Area at times during migration or after overwintering on the coast.

Valley elderberry longhorn beetle (VELB) is a federal threatened insect, proposed for delisting. Elderberry (*Sambucus* sp.), which is a primary host species for valley elderberry longhorn beetle (VELB) is a common plant found throughout the Central Valley and foothills, but especially in riparian zones. There are no elderberry plants located within the footprint of the project site, or otherwise in areas that would be disturbed.

Essential habitat for crotch bumble bee is not present on the project site.

No special-status invertebrate species are expected to be affected by the proposed project. Therefore, impacts to special-status invertebrates would be less-than-significant.

Fish: There are four special-status fish that are documented within the 9-quadrangle region for the project site according to the CNDDB including: hardhead (*Mylopharodon conocephalus*), Kern brook lamprey (*Lampetra hubbsi*), San Joaquin roach (*Lavinia symmetricus ssp. 1*), and steelhead - Central Valley DPS (*Oncorhynchus mykiss irideus pop. 11*). Potentially suitable habitat for hardhead, Kern brook lamprey, and steelhead - Central Valley DPS is located along the Merced River. However, hardhead and Kern brook lamprey species are not anticipated to be directly or indirectly affected by any individual phase or component of the proposed project because there is not appropriate aquatic habitat on the project's development footprint. There is no essential habitat for San Joaquin roach within the project site.

The project site is within the evolutionarily significant unit (ESU) for the spring run of steelhead - Central Valley DPS (*Oncorhynchus mykiss irideus pop. 11*). This is the only steelhead species documented by the CNDDB along the Merced River in the vicinity of the project site. Proposed facilities in the vicinity of the River include the cater/storage building and the terminus of the gravel road. The proposed facilities and improvements are 150 feet or further from the Merced River. As such, the proposed project would not disturb any habitat associated with this species. During operation of the project, event guests may walk down to the River, away from the proposed facilities. Existing residents and guests at the project site currently walk down to the creek as a result of the existing mobile home residence, ancillary facilities, and seasonal or private

festivities (such as the seasonal Halloween festivities and occasional wedding activities). As a result of the proposed project, additional guests may walk down to the River as compared to the existing condition. There would be no direct impacts to steelhead - Central Valley DPS (*Oncorhynchus mykiss irideus pop. 11*). To address the potential indirect impacts to this species as a result of project construction, a Storm Water Pollution Prevention Plan (SWPPP) would be implemented. The SWPPP would contain required construction BMPs, which would reduce soil erosion impacts. For example, stormwater erosion control wattles would be placed along the project's disturbance boundaries, and orange construction fencing would be placed along the River. This would ensure that no construction equipment or activity is located within 150 feet of the River, and any runoff would be controlled by the wattles.

Reptile and Amphibian: There are four special-status amphibian and/or reptile that are documented within the 9-quadrangle region for the project site according to the CNDDB including: California tiger salamander (*Ambystoma californiense*), foothill yellow-legged frog (*Rana boylii*), western spadefoot (*Spea hammondii*), and western pond turtle (*Emys marmorata*). There is no essential habitat for any of these four species within the project.

No special-status amphibian and/or reptile species are expected to be affected by the proposed project. The Merced River is not considered quality breeding habitat for most amphibians because of the larger population of predators (i.e. steelhead). There would be aquatic breeding sites in the region, but none are located in the footprint of the proposed Project. Additionally, the footprint of the proposed Project does not contain quality upland estivation or hibernation habitat for any amphibians or reptiles (i.e. lack of burrows). The proposed project improvements are setback from the Merced River and associated adjacent habitat. Therefore, impacts to special-status amphibian and/or reptile would be less-than-significant.

Birds: Special-status birds that are documented in the CNDDB within the 9-quadrangle region for the project site include: bald eagle (*Haliaeetus leucocephalus*), burrowing owl (*Athene cunicularia*), California horned lark (*Eremophila alpestris actia*), ferruginous hawk (*Buteo regalis*), least Bell's vireo (*Vireo bellii pusillus*), merlin (*Falco columbarius*), mountain plover (*Charadrius montanus*), northern harrier (*Circus hudsonius*), osprey (*Pandion haliaetus*), Swainson's hawk (*Buteo swainsoni*), tricolored blackbird (*Agelaius tricolor*), and yellow-breasted chat (*Icteria virens*).

The project site may provide suitable foraging habitat for a variety of potentially occurring special-status birds, including those listed above. Potential nesting habitat is present in a variety of trees located within the project site and in the vicinity. There is also the potential for other special-status birds that do not nest in this region and represent migrants or winter visitants to forage on the project site. In general, most nesting occurs from late February and early March through late July and early August, depending on various environmental conditions.

Year-round birds can be present in the region throughout the year, summering birds are only present in the region in the spring and summer months, and overwintering birds are only present in the region in the fall and winter months. All raptors (owls, hawks, eagles, falcons), including species and their nests, are protected from take pursuant to the Fish and Game Code of California Section 3503.5, and the federal Migratory Bird Treaty Act, among other federal and State regulations.

New sources of noise and light during the construction and operational phases of the project could adversely affect nesters if they located adjacent to the project site in any given year. Additionally, the proposed project would eliminate the potential foraging areas on the project

site, which serve as potential foraging habitat for birds (including Swainson's hawk) throughout the year.

Mammals: Special-status mammals that are documented within the 9-quadrangle region for the project site include: American badger (*Taxidea taxus*), pallid bat (*Antrozous pallidus*), San Joaquin kit fox (*Vulpes macrotis mutica*), Townsend's big-eared bat (*Corynorhinus townsendii*), western mastiff bat (*Eumops perotis californicus*), and western red bat (*Lasiurus blossevillii*).

The project site does not contain suitable habitat for American badger or San Joaquin kit fox. Some special-status bat species may occur on-site periodically. Trees located within the project site provide potentially suitable roosting habitat. Since tree removal may be required for project construction, direct impacts on special-status bat species could occur if the species are present at the time of removal.

Conclusion

No amphibian, reptile, or mammal species are expected to be affected by the proposed project. One special-status fish, steelhead - Central Valley DPS (*Oncorhynchus mykiss irideus pop. 11*), has the potential to occur on-site within the Merced River. In order to ensure that operation of the project, including future guests to the site, does not significantly impact on-site habitat for steelhead - Central Valley DPS (*Oncorhynchus mykiss irideus pop. 11*), Mitigation Measure BIO-1 requires that a signage plan be created and implemented, and that various BMPs be implemented. The signage plan would identify environmentally sensitive areas along the Merced River so guests and employees of the proposed project would avoid the areas. The project site also contains suitable nesting habitat for a variety of special-status birds. In addition, common raptors such as among others, may nest in or adjacent to the project site. Mitigation Measure BIO-2 requires measures to avoid or minimize impacts on Swainson's hawk, Mitigation Measure BIO-3 requires and measures to avoid or minimize impacts on other protected bird species which may be found on-site, and Mitigation Measure BIO-4 requires and measures to avoid or minimize impacts on protected bat species which may be found on-site. With these mitigation measures, the proposed project would have a **less than significant** impact relative to this topic.

Mitigation Measures

Mitigation Measure BIO-1: *The project shall be designed to ensure that setbacks between the proposed improvements and the Merced River and associated riparian habitat are provided. A minimum setback distance of 100 feet shall be provided. Additionally, the project shall implement the following BMPs during construction and operation:*

- *Only passive use within the 100-foot setback is allowed during operation of events. Passive use shall include walking, standing, sitting, and picture taking. Passive use does not include any activity that would involve the use of materials that could litter or otherwise pollute the Merced River (i.e. eating/drinking, paintball events, Halloween events, etc.)*
- *The use of nutrients, pesticides, fuel, or other potential pollutants shall be prohibited within 100 feet of the Merced River.*
- *A qualified biologist shall monitor construction activities to ensure that no resource violations related to the U.S. Clean Water Act (CWA), the California Porter-Cologne Act (PCA), or California Fish and Game Code (FGC) occur.*
- *No grading, site construction, or other disturbance shall occur within 100 feet of the Merced River.*
- *Silt fencing, fiber rolls, or other similar BMP must be installed at the limits of construction, and at least 100 feet away from the Merced River.*

- *No machinery shall operate closer than 100 feet from an aquatic resource.*
- *Machinery shall be checked daily for fuel or oil.*
- *No grading shall occur within aquatic resources setbacks for after 14 days following a storm event or 14 days before the next anticipated storm event.*
- *Graded areas shall be covered with straw, mats, or natural wood chips with no artificial dyes or preservatives, or other erosion control measure within 72 hours of exposure.*
- *On completion of construction, disturbed areas shall be replanted with locally native seed mix distributed through a hydroseed applicator and mixed with a tackifier.*
- *Installed landscaping shall be irrigated with above-ground temporary irrigation equipment and removed once plantings have established and are no longer necessary. Irrigation timing and flow should be gradually reduced to naturally occurring rainfall after the first three months. Landscaping shall be conducted under the direction of a qualified landscape designer or landscape architect.*
- *All construction and erosion control materials shall be removed from the construction site after work is completed. If materials are necessary after construction, contractor or owner's representative shall designate a future removal time.*

Further, the project applicant shall prepare and implement a signage plan that identifies environmentally sensitive areas within the project site (i.e. Merced River). The signage plan is intended to alert guests and employees of areas that should be avoided including the Merced River and the associated riparian habitat. The signs shall be placed on steel posts installed securely to the ground and face toward the event area. The signage shall be designed to limit ground disturbance and sign maintenance to the extent feasible.

***Mitigation Measure BIO-2**: The project proponent shall implement the following measures to avoid or minimize impacts on Swainson's hawk:*

- *No more than 30 days before the commencement of construction, a qualified avian biologist shall perform preconstruction surveys for nesting Swainson's hawk and other raptors during the nesting season (February 1 through August 31).*
- *Appropriate buffers shall be established and maintained around active nest sites during construction activities to avoid nest failure as a result of project activities. The appropriate size and shape of the buffers shall be determined by a qualified avian biologist, in coordination with CDFW, and may vary depending on the nest location, nest stage, and construction activity. The buffers may be adjusted if a qualified avian biologist determines it would not be likely to adversely affect the nest. Monitoring shall be conducted to confirm that project activity is not resulting in detectable adverse effects on nesting birds or their young. No project activity shall commence within the buffer areas until a qualified avian biologist has determined that the young have fledged or the nest site is otherwise no longer in use.*
- *Before the commencement of construction, the project proponent shall provide compensatory mitigation for the permanent loss of Swainson's hawk foraging habitat. Mitigation shall be at the CDFW specified ratios, which are based on distance to nests. The Plan Area's distance to the closest nest falls within the range of "within 5 miles of an active nest tree but greater than 1 mile from the nest tree." As such, the Project shall be responsible for 0.75 acres of each acre of urban development authorized (0-75:1 ratio). The project proponent shall either provide lands protected through fee title acquisition or conservation easement (acceptable to the CDFW) on agricultural lands or other suitable habitats which provide foraging habitat for Swainson's hawk.*

Mitigation Measure BIO-3*: The project proponent shall implement the following measure to avoid or minimize impacts on other protected bird species that may occur on the site:*

- *Preconstruction surveys for active nests of special-status birds shall be conducted by a qualified avian biologist in all areas of suitable habitat within 500 feet of project disturbance. Surveys shall be conducted within 14 days before commencement of any construction activities that occur during the nesting season (February 15 to August 31) in a given area.*
- *If any active nests, or behaviors indicating that active nests are present, are observed, appropriate buffers around the nest sites shall be determined by a qualified avian biologist to avoid nest failure resulting from project activities. The size of the buffer shall depend on the species, nest location, nest stage, and specific construction activities to be performed while the nest is active. The buffers may be adjusted if a qualified avian biologist determines it would not be likely to adversely affect the nest. If buffers are adjusted, monitoring will be conducted to confirm that project activity is not resulting in detectable adverse effects on nesting birds or their young. No project activity shall commence within the buffer areas until a qualified avian biologist has determined that the young have fledged or the nest site is otherwise no longer in use.*

Mitigation Measure BIO-4: *The project proponent shall implement the following measures to avoid or minimize impacts on special-status bat species that may occur on the site:*

- *If removal of trees with suitable roost cavities and/or dense foliage must occur during the bat pupping season (April 1 through July 31), surveys for active maternity roosts shall be conducted by a qualified biologist in trees designated for removal. The surveys shall be conducted from dusk until dark.*

- *If a special-status bat maternity roost is located, appropriate buffers around the roost sites shall be determined by a qualified biologist and implemented to avoid destruction or abandonment of the roost resulting from tree removal or other project activities. The size of the buffer shall depend on the species, roost location, and specific construction activities to be performed in the vicinity. No project activity shall commence within the buffer areas until the end of the pupping season (August 1) or until a qualified biologist conforms the maternity roost is no longer active.*

Response b): Less than Significant. Riparian habitat on the project site is located along the Merced River. The project would not disturb the River or adjacent riparian areas because adequate setbacks between the proposed development footprint and the riparian habitat and associated River are provided. The proposed facilities and improvements are 150 feet or further from the Merced River. It is noted that the existing residents and guests currently access the Merced River, and it is anticipated that new guest would walk in the areas between the development footprint and the Merced River. Walking in this area is not considered a significant impact.

The CNDDB record search revealed documented occurrences of one sensitive habitat within 15 miles of the project site including: Northern Hardpan Vernal Pool. This sensitive natural community does not occur within the project site. Implementation of the proposed project would have a **less than significant** impact on riparian habitats or natural communities.

Response c): Less than Significant. Waters of the U.S., including wetlands, are broadly defined under 33 Code of Federal Regulations (CFR) 328 to include navigable waterways, their

tributaries, and adjacent wetlands. State and federal agencies regulate these habitats, and Section 404 of the Clean Water Act requires that a permit be secured prior to the discharge of dredged or fill materials into any waters of the U.S., including wetlands. The USACE, CDFW, and the California Regional Water Quality Control Board (RWQCB) have jurisdiction over modifications to riverbanks, lakes, stream channels and other wetland features.

"Waters of the U.S.", as defined in 33 CFR 328.4, encompasses Territorial Seas, Tidal Waters, and Non-Tidal Waters; Non-Tidal Waters includes interstate and intrastate rivers and streams, as well as their tributaries. The limit of federal jurisdiction of Non-Tidal Waters of the U.S. extends to the "ordinary high-water mark". The ordinary high-water mark is established by physical characteristics such as a natural water line impressed on the bank, presence of shelves, destruction of terrestrial vegetation, or the presence of litter and debris.

Jurisdictional wetlands are vegetated areas that meet specific vegetation, soil, and hydrologic criteria defined by the USACE Wetlands Delineation Manual and Regional Supplement. Jurisdictional wetlands are usually adjacent to or hydrologically associated with Waters of the U.S. Isolated wetlands are outside federal jurisdiction, but may still be regulated in some cases by state agencies including CDFW and RWQCB.

Jurisdictional wetlands and Waters of the U.S. include, but are not limited to, perennial and intermittent creeks and drainages, lakes, seeps, and springs; emergent marshes; riparian wetlands; and seasonal wetlands. Wetlands and Waters of the U.S. provide critical habitat components, such as nest sites and a reliable source of water, for a wide variety of wildlife species.

The Merced River is located on-site. No other potential jurisdictional wetlands or Waters of the U.S. were observed in the site.

As noted above, the project would not disturb the River or adjacent areas because adequate setbacks between the proposed development footprint and the riparian habitat and associated River are provided. The small amount of drainage that would result from the additional buildings would be controlled by a small drainage ditch system that would be submitted with the building plans. It is not anticipated that any new storm drainage is warranted for the existing access roads or unpaved parking area given they will remain pervious. A full basin or outfall is not necessary for the small amount of impervious surface added to the site. As such, discharge of stormwater to the Merced River would not occur.

Overall, implementation of the proposed project would have **less than significant** impact relative to this topic.

Response d): Less than Significant. The CNDDB record search did not reveal any documented wildlife corridors or wildlife nursery sites on or adjacent to the project site. Special status fish species documented within the region include: Delta smelt (*Hypomesus transpacificus),* hardhead (*Mylopharodon conocephalus*), Kern brook lamprey (*Lampetra hubbsi*), San Joaquin roach (*Lavinia symmetricus ssp. 1*), and steelhead - Central Valley DPS (*Oncorhynchus mykiss irideus pop. 11*). The Merced River could be considered a corridor for native fish that are documented in the region, which is located on-site south and east of the proposed event center facilities.

As noted above, the project would not have any direct disturbance to the River or adjacent areas because adequate setbacks between the proposed development footprint and the riparian habitat and associated River are provided. Additionally, while steelhead - Central Valley DPS (*Oncorhynchus mykiss irideus pop. 11*) has the potential to occur on-site within the Merced River, Mitigation Measure BIO-1 is designed to reduce the potential for indirect impacts. This measure

requires that a signage plan be created and implemented to inform guests of environmental sensitive areas, and that various BMPs be implemented to prevent polluted runoff and erosion.

The small amount of drainage that would result from the additional buildings would be controlled by a small drainage ditch system that would be submitted with the building plans. It is not anticipated that any new storm drainage is warranted for the existing access roads or unpaved parking area given they will remain pervious. A full basin or outfall is not necessary for the small amount of impervious surface added to the site. As such, discharge of stormwater to the Merced River would not occur.

The project would not have any direct disturbance to the Merced River or its tributaries, and therefore, would not have any direct disturbance to the movement corridor or habitat. Overall, implementation of the proposed project would have **less than significant** impact relative to this topic.

Response e): No Impact. Merced County has no adopted ordinances or programs for the protection of biological resources in the unincorporated areas of the county. The County does not have a tree preservation ordinance. Because no locally adopted ordinances or programs exist, there would be no potential for implementation of the proposed project to conflict with such regulations. Therefore, the proposed project would have **no impact** relative to this topic.

Response f): No Impact. Other than one 120-acre Habitat Conservation Plan for the San Joaquin kit fox in the Santa Nella community in western Merced County, there are no adopted Habitat Conservation Plans or Natural Community Conservation Plans with coverage for any area or activity in Merced County. As such, the project site is not covered by an adopted Habitat Conservation Plan or Natural Community Conservation Plan. There is **no impact** relative to this topic.

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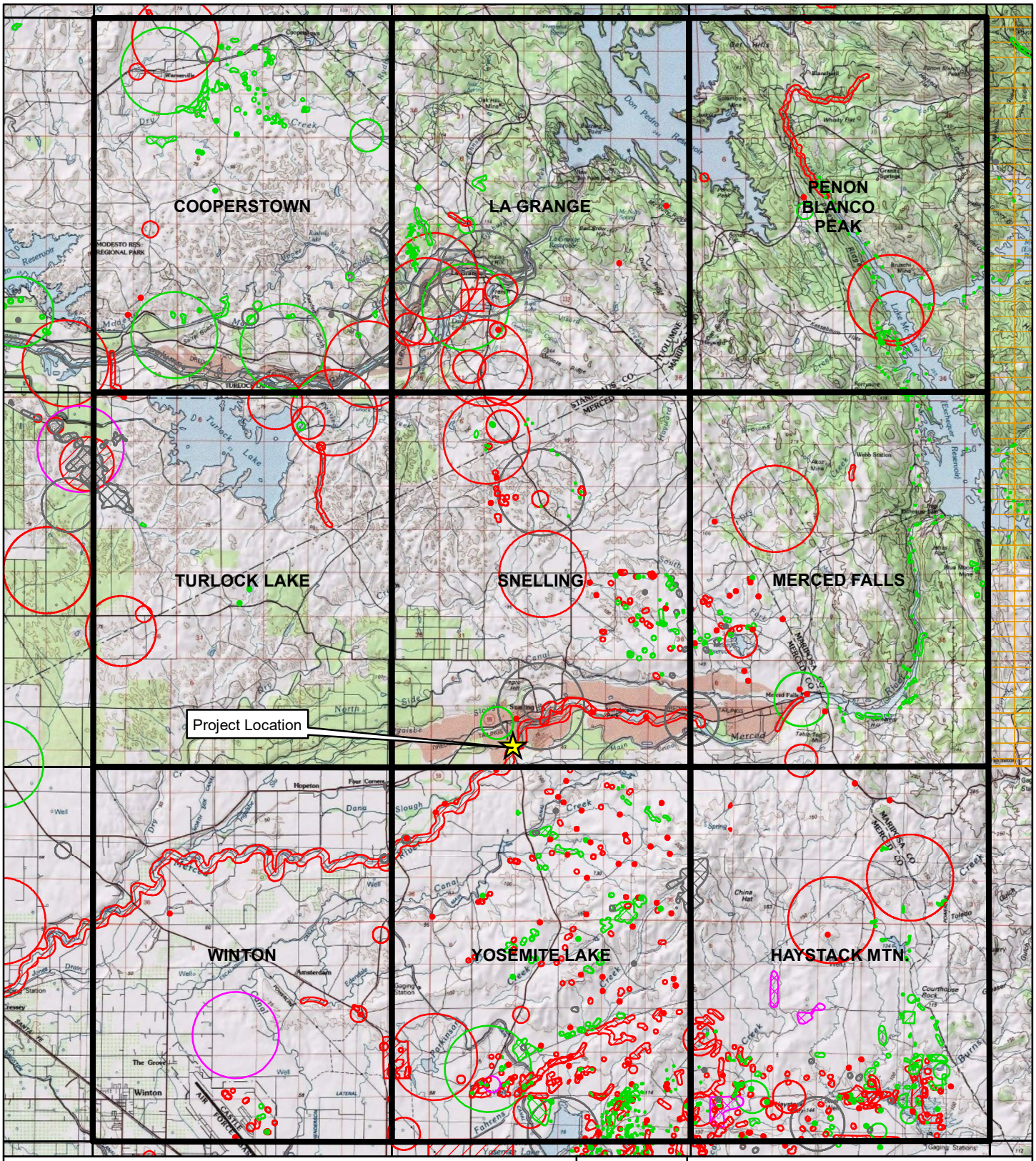

Plant (80m)
Plant (specific)
Plant (non-specific)
Plant (circular)
Animal (80m)
Animal (specific)
Animal (non-specific)
Animal (circular)
Terrestrial Comm. (specific)
Terrestrial Comm. (circular)
Multiple (80m)
Multiple (specific)
Multiple (non-specific)
Multiple (circular)
Sensitive Environmental Occurrence

0 1 2
Miles

Sources: ArcGIS Online Topographic Map Service; CNDDB version 10/2020. Please Note: the occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area. Map date: October 27, 2020.

SNELLING ROAD EVENT CENTER
MERCED COUNTY, CALIFORNIA

Figure 7. California Natural Diversity Database

9-Quad Search

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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V. CULTURAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

EXISTING SETTING

In 2021, Peak & Associates conducted a *Cultural Resources Assessment* for the project site, consisting of records search, literature review, and a field review for the proposed project. The following discussion and analysis is based on the information provided in the *Cultural Resources Assessment*.

Merced County has not received letters requesting consultation from any tribes or tribal organizations.

Historical Background

In the early spring of 1851, a brush shelter called "a house of entertainment" was established in the area that would become Snelling. Soon thereafter, Dr. Lewis built the building that would later become Snelling's Hotel. In the fall of 1851, the Snelling family arrived and purchased the hotel and property (Hoover, Rensch and Rensch 1970).

Snelling was not an early mining town, but served as an important support community on the well-traveled road to the Mariposa mines. Some placer and hydraulic mining did occur in the region in the early years (Clark 1970).

In 1857, Snelling's Ranch became the county seat for Merced County. A courthouse was built in the town that still stands today (McDevitt 2001). Eventually, the importance of the mining industry lessened, and agriculture became more important. The shipping of produce and proximity of the agricultural lands in the Valley instead of the foothills led to the move of the county seat to Merced in 1872 (Hoover, Rensch and Rensch 1970).

Dredge mining occurred in three different periods in the Snelling District: 1907-1919; 1929-1942; and 1946-1952 (Clark 1970). According to the site form created for the region for P-24-001782, the tailings date to the early 1950s, based on information from a single informant. Historical evidence argues against that: the 1918 USGS topographic map for the region shows dredge tailings, primarily on the south side of the Merced River, extending about a mile downstream into the edge of the project area.

At some point, for someone interested in dredging in the region, a review could be made using aerial photographs and the early map to segregate out the sequence of the work. Land ownership and land lease documents from the County Recorder could also help understand the sequence.

As is, the recordation of the tailings has little value. The recorders have made no attempt to interpret the history of the site or to provide details beyond what they see on the modern topographic maps. No evaluation of the significance of the site is possible.

RESPONSES TO CHECKLIST QUESTIONS

Responses a-c): Less than Significant with Mitigation. Peak & Associates conducted a search through the Central California Information Center (CCIC) of the California Historical Resources Information System (CHRIS) on September 24, 2020 (CCIC File #11511, Appendix 2 of Appendix B). The records search identified no recorded historic or prehistoric cultural resources within the project site, or within 0.125 miles of the project site. No prehistoric period sites have been recorded. Two historic districts have been recorded covering the project area and search radius: P-24-1782 and P-24-1909.

The historic district for the tailings and other mining related features, P-24-1782, includes all of the project area, except the southern portion. Most of the project area is on a portion of the landscape that was never dredged. There is a ditch that dates to before 1915 that in part lies at the northern boundary of the project area. The ditch is still present on the modern topographic quadrangle.

Using a 1937 map, archaeologists put all of the area serviced by the Merced Irrigation District in that year, a total of about 900 square miles, as a district—P-24-1909. This creates a strange situation by essentially condemning a large section of the region as a "district," even though the majority of the area contains no physical features of the district, and the landscape has considerably changed since 1937. There was apparently no survey to even verify that any of the features from 1937 exist and if there is any integrity of the district. Several studies in other parts of Merced County have recorded portions of the system.

The system is considered not eligible for the National Register of Historic Places

Development of the proposed project would not have any impact on a known historical resource as defined under CEQA Guidelines Section 15064.5.

Additionally, there are no known archaeological or paleontological resources or human remains located on the project site. The project site is not located in an area that is likely to contain human remains. Given that the site has been previously disturbed and developed (to serve as a golf course), there is a limited potential for a previously undiscovered archaeological or paleontological resource to be located on the site. Peak & Associates conducted a field survey on October 1, 2020, which found no cultural resources.

Although no prehistoric sites were found during the survey, there does exist the potential for buried or previously undiscovered prehistoric archaeological sites, paleontological resources, and/or human remains. As such, there remains a possibility that unrecorded cultural resources are present beneath the ground surface and that such resources could be exposed during project construction. Both CEQA and Section 106 of the National Historic Preservation Act of 1966 (NHPA) require the Lead Agency to address any unanticipated cultural resource discoveries during project construction.

Out of an abundance of caution, implementation of Mitigation Measure CLT-1 would ensure that any potentially significant resources uncovered during construction are appropriately identified and mitigated and will reduce potential construction-related impacts to cultural resources to a **less than significant** level.

Mitigation Measure

Mitigation Measure CLT-1: *If any archaeological resources, paleontological resources, or human remains are discovered during project construction, construction shall be halted within 50 feet of the discovery and the following measures shall be implemented:*

- *If any prehistoric or historic artifacts, or other indications of archaeological resources are found during grading and construction activities, an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, shall be consulted to evaluate the finds and recommend appropriate mitigation measures.*
- *If cultural resources or Native American resources are identified, every effort shall be made to avoid significant cultural resources, with in-place preservation an important goal.*
- *Following the applicable 30-day period, the County will review any preservation and mitigation measures recommended by the consulting archaeologist and California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project, and shall provide direction regarding the preservation and/or mitigation that shall occur. If significant sites cannot feasibly be avoided, appropriate mitigation measures, such as data recovery excavations or photographic documentation of buildings, shall be undertaken consistent with applicable state and federal regulations. This requirement shall be included on any grading or building permits issued for the proposed project.*
- *If human remains are discovered, all work shall be halted immediately within 50 meters (165 feet) of the discovery, the County Coroner must be notified, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.*
- *If any fossils are encountered, there shall be no further disturbance of the area surrounding this find until the materials have been evaluated by a qualified paleontologist, and appropriate treatment measures have been identified.*

VI. ENERGY

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

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. Appendix F of the State CEQA Guidelines requires consideration of the potentially significant energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy usage (Public Resources Code Section 21100, subdivision [b][3]). According to Appendix F of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, the proposed project would be considered "wasteful, inefficient, and unnecessary" if it were to violate state and federal energy standards and/or result in significant adverse impacts related to project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

The proposed project includes the construction of a 736-sf catering and storage building, 736-sf restroom and changing room building, 218-sf gazebo, and parking area onto the site. The amount of energy used at the project site would directly correlate to the number and size of the proposed structures, the energy consumption of associated appliances, and outdoor lighting. Other major sources of proposed project energy consumption include fuel used by vehicle trips generated during project construction and operation, and fuel used by off-road construction vehicles during construction.

The following discussion provides calculated levels of energy use expected for the proposed project, based on commonly used modelling software (i.e. CalEEMod v.2016.3.2 and the California Air Resource Board's EMFAC2014). It should be noted that many of the assumptions provided by CalEEMod are conservative relative to the proposed project. Therefore, this discussion provides a conservative estimate of proposed project emissions.

Electricity and Natural Gas

Electricity and natural gas used by the proposed project would be used primarily to power on-site buildings. Total annual unmitigated and mitigated electricity (kWh) and natural gas (kBTU) usage associated with the operation of the proposed project are shown in Table ENG-1, below (as provided by CalEEMod). The CalEEMod results are included in Appendix C.

Table ENG-1: Project Operational Natural Gas and Electricity Usage (Unmitigated Scenario)

Emissions[(a)]	*Natural Gas (kBTU/year)*	*Electricity (kWh/year)*
Quality Restaurant	171,046	36,167

SOURCE: CALEEMOD (V.2016.3.2).

As shown in Table ENG-1, project operational energy usage would 171,046 kBTU per year and 36,167 kWh per year.

On-Road Vehicles (Operation)

The proposed project would generate vehicle trips during its operational phase. In order to calculate operational on-road vehicle energy usage and emissions, default trip lengths generated by CalEEMod were used, which are based on the project location and urbanization level parameters De Novo (the Initial Study consultant) selected within CalEEMod (i.e. "San Joaquin Valley Air Pollution Control District" project location and "Urban" setting, respectively). These values are provided by the individual districts or use a default average for the state, depending on the location of the proposed project (CAPCOA, 2017). Based on outputs provided by CalEEMod, the proposed project would generate at total of approximately 421 average daily vehicle miles travelled (Average Daily VMT). Using fleet mix data provide by CalEEMod (v2016.3.2), and Year 2021 gasoline and diesel MPG (miles per gallon) factors for individual vehicle classes as provided by EMFAC2017, De Novo derived weighted MPG factors for operational on-road vehicles of approximately 23.34 MPG for gasoline. With this information, De Novo calculated as a conservative estimate that the unmitigated proposed project would generate vehicle trips that would use a total of approximately 18 gallons of gasoline per day, on average, or 6,586 gallons of gasoline per year.

On-Road Vehicles (Construction)

The proposed project would also generate on-road vehicle trips during project construction (from construction workers and vendors). Estimates of vehicle fuel consumed were derived based on the assumed construction schedule, vehicle trip lengths and number of workers per construction phase as provided by CalEEMod, and Year 2021 gasoline MPG factors provided by EMFAC2017. For the purposes of simplicity, it was assumed that all vehicles used gasoline as a fuel source (as opposed to diesel fuel or alternative sources). Table ENG-2 describes gasoline and diesel fuel used by on-road mobile sources during each phase of the construction schedule. As shown, the vast majority of on-road mobile vehicle fuel used during the construction of the proposed project would occur during the building construction phase. See Appendix C for a detailed calculation.

Table ENG-2: On-Road Mobile Fuel Generated by Project Construction Activities – By Phase

Construction Phase	*# of Days*	*Total Daily Worker Trips[(a)]*	*Total Daily Vendor Trips[(a)]*	*Gallons of Gasoline Fuel[(b)]*	*Gallons of Diesel Fuel[(b)]*
Site Preparation	1	5	-	2	-
Grading	2	10	-	8	-
Building Construction	100	10	4	387	445
Paving	5	18	-	35	-
Architectural Coating	5	2	-	4	-
Total	**N/A**	**N/A**	**N/A**	**436**	**445**

NOTE: [(A)] PROVIDED BY CALEEMOD. [(B)] SEE APPENDIX C FOR FURTHER DETAIL.

SOURCE: CALEEMOD (V.2016.3.2); EMFAC2017.

Off-Road Vehicles (Construction)

Off-road construction vehicles would use diesel fuel during the construction phase of the proposed project. A non-exhaustive list of off-road constructive vehicles expected to be used during the construction phase of the proposed project includes: cranes, forklifts, tractors,

graders, and dozers. Based on the total amount of CO_2 emissions expected to be generated by the proposed project (as provided by the CalEEMod output), and a CO_2 to diesel fuel conversion factor (provided by the U.S. Energy Information Administration), the proposed project would use a total of approximately 145.42 gallons of diesel fuel for off-road construction vehicles (during the site preparation and grading phases of the proposed project). Detailed calculations are provided in Appendix C.

Other

Proposed project landscape maintenance activities would generally require the use fossil fuel (i.e. gasoline) energy. For example, lawn mowers require the use of fuel for power. As an approximation, it is estimated that landscape care maintenance would require one individual one full day per week, or approximately 417 hours per year. Assuming an average of approximately 0.5 gallons of gasoline used per person-hour, the proposed project would require the use of approximately 209 gallons of gasoline per year to power landscape maintenance equipment. The energy used to power landscape maintenance equipment would not differ substantially from the energy required for landscape maintenance for a similar project.

Conclusion

The proposed project would use energy resources for the operation of project buildings (electricity and natural gas), for on-road vehicle trips (e.g. gasoline and diesel fuel) generated by the proposed project, and from off-road construction activities associated with the proposed project (e.g. diesel fuel). Each of these activities would require the use of energy resources. The proposed project would be responsible for conserving energy, to the extent feasible, and relies heavily on reducing per capita energy consumption to achieve this goal, including through Statewide and local measures.

The proposed project would be in compliance with all applicable Federal, State, and local regulations regulating energy usage. For example, PG&E is responsible for the mix of energy resources used to provide electricity for its customers, and it is in the process of implementing the Statewide Renewable Portfolio Standard (RPS) to increase the proportion of renewable energy (e.g. solar and wind) within its energy portfolio. PG&E is expected to achieve at least a 33 percent mix of renewable energy resources by 2020, and 50 percent by 2030. Additionally, energy-saving regulations, including the latest State Title 24 building energy efficiency standards ("part 6"), would be applicable to the proposed project. Other Statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g. the Pavley Bill and the Low Carbon Fuel Standard), would improve vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time.

As a result, the proposed project would not result in any significant adverse impacts related to project energy requirements, energy use inefficiencies, and/or the energy intensiveness of materials by amount and fuel type for each stage of the project including construction, operations, maintenance, and/or removal. PG&E, the electricity and natural gas provider to the site, maintains sufficient capacity to serve the proposed project. The proposed project would comply with all existing energy standards, including those established by the County of Merced, and would not result in significant adverse impacts on energy resources. For these reasons, the proposed project would not be expected cause an inefficient, wasteful, or unnecessary use of energy resources nor cause a significant impact on any of the threshold as described by Appendix F of the CEQA Guidelines. This is a **less than significant** impact.

VII. GEOLOGY AND SOILS

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

EXISTING SETTING

The project site is located within the Great Central Valley of California. The Central Valley is composed primarily of alluvial deposits from erosion of the Sierra Nevada Mountains located to the east and of the Coastal Ranges located to the west. The terrain is predominantly flat with slopes increasing to the northwest and decreasing to the southeast. The project site's elevation ranges between 252 to 241 feet above MSL.

According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA NRCS, 2017), the project site contains Hanford gravelly sandy loam (8.91 acres), Tailings (7.27 acres) and Water (3.46 acres). Construction would occur on the

Hanford gravelly sandy loam soil type. The Hanford series consists of very deep, well drained soils that formed in moderately coarse textured alluvium dominantly from granite. Hanford soils are on stream bottoms, floodplains and alluvial fans and have slopes of 0 to 15 percent. Additionally, the shrink-swell potential of this soil is low (USDA NRCS, 2021).

Soil properties that affect the load-supporting capacity of an area include depth to groundwater, ponding, subsidence, shrink-swell potential, and compressibility. The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments. The project site soil types present no limitations for development of the proposed project.

Merced County regulates the effects of soils and geological constraints on urban development primarily through enforcement of the California Building Standards Code (CBSC), which requires the implementation of engineering solutions for constraints to urban development posed by slopes, soils, and geology. The project site is not located within a mapped fault hazard zone.

RESPONSES TO CHECKLIST QUESTIONS

Responses a.i), a.ii): Less than Significant with Mitigation.

Seismic Hazards

Potential seismic hazards resulting from a nearby moderate to major earthquake could generally be classified as primary and secondary. The primary seismic hazard is ground rupture, also called surface faulting. Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion could cause ground cracks to form in weaker soils. The potential for the formation of these cracks is considered greater at contacts between deep alluvium and bedrock.

The common secondary seismic hazards include ground shaking and ground lurching. Figure 8 shows earthquake faults within the vicinity of the project site. As shown, the Foothills fault system, located approximately 24 miles north of the project site, is the nearest fault to the project site. Other faults are located 40 or more miles west and southwest of the site, including but not limited to the Great Valley thrust fault system, O'Neill fault system, Ortigalita fault zone, and San Joaquin faults.

Additionally, the proposed project would be built using standard engineering and seismic safety design techniques. Building design at the project site would be completed in conformance with the requirements of applicable building and fire codes, including the 2016 CBSC. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures would be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage.

Conclusion

The project site is not within an Alquist-Priolo Special Studies Zone nor a highly seismically active zone. However, several faults are located within approximately 24 to 40 miles of the project site,

including the Ortigalita fault (over 40 miles southwest of the site), which is located within an Alquist-Priolo fault. Therefore, development of the proposed project could expose people or structures to adverse effects of rupture of a known earthquake fault and/or strong ground shaking. However, given the distance to the nearest Alquist-Priolo earthquake fault, and given that the proposed project would comply with all requirements as established within the California Building Standards Code, substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault and/or strong seismic ground shaking related to these topics, is low. Nevertheless, out of an abundance of caution, the proposed project would be required to implement Mitigation Measures GEO-1 and GEO-2, below. With implementation of these mitigation measures, potential impacts to these topics would be **less than significant.**

Mitigation Measures

Mitigation Measure GEO-1: *Prior to grading permit issuance, the applicant shall submit a final geotechnical evaluation of the project site that analyzes the potential for lateral spreading, subsidence, and liquefaction or collapse. The report shall identify any on site soil and seismic hazards and provide design recommendations for onsite soil and seismic conditions. The geotechnical evaluation shall be reviewed and approved by the County Director of Public Works, and a qualified Geotechnical Engineer to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design.*

Mitigation Measure GEO-2*: All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the County Director of Public Works, and a qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design.*

Responses a.iii), c): Less than Significant. Lateral spreading typically results when ground shaking moves soil toward an area where the soil integrity is weak or unsupported, and it typically occurs on the surface of a slope, although it does not occur strictly on steep slopes. Oftentimes, lateral spreading is directly associated with areas of liquefaction. Areas in the region that are susceptible to lateral spreading are located along creeks or open water bodies. Lateral spreading is uncommon in Merced County. Although the Merced River is on-site, the river is a sufficient distance from the proposed disturbance areas for lateral spreading to occur. For this reason, the probability of lateral spreading occurring on the project site is low.

Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e. cut and fill). The potential for landslides is considered remote at or near to the project site to the lack of particularly significant slopes in the proposed development area. For this reason, the probability of landslides occurring on the project site is low.

Soil liquefaction results from loss of strength during cyclic loading, such as that which is imposed by earthquakes. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded, and fine-grained sands. The surface soils at the project site have low plasticity and expansion potential and are not anticipated to be unstable or become unstable as a result of the proposed project. From a regional perspective, the soils located within Merced County are considered to have a low potential for liquefaction. The soils present on-site have a low plasticity

and expansion potential when subjected to fluctuations in moisture and have a low potential for liquefaction or ground failure.

Based on the known conditions of the soils documented on the project site, the risk or liquefaction or ground failure during strong earthquake shaking is low. However, the proposed project would be required to implement Mitigation Measures GEO-1 and GEO-2. With implementation of these mitigation measures, the potential for the proposed project to expose people or structures to potential substantial adverse effects associated with seismic-related ground failure, including liquefaction, and/or impacts related to the potential for the proposed project to be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, would be at a **less than significant** level.

Response a.iv): Less than Significant. The project site is not particularly susceptible to landslides because the area where development would occur does not have a large slope. The project site disturbance area is relatively flat and there is a low risk of exposing people or structures to landslides is low. This is a **less than significant** impact.

Response b): Less than Significant. Soil grading activities have the potential to result in increased soil erosion and sedimentation.

As described in Section IX, Best Management Practices (BMPs) related to prevention of soil erosion during site disturbance, construction activities, and project operation would be implemented. Construction activities disturbing one or more acres are required by the State Water Resources Control Board (SWRCB) to obtain a General Construction Activity Stormwater Permit (Order 2009-009-DWQ), which would require the proposed project to implement a SWPPP. Since the proposed project would disturb greater than one acre, the project applicant would be required to obtain such a permit and implement a SWPPP. The SWPPP would contain required construction BMPs, which would reduce soil erosion impacts. While development of the project has the potential to result in a significant impact with respect to removal of topsoil and soil erosion, implementation of BMPs and consistency with the applicable NPDES requirements would ensure the impact is **less than significant**.

Response d): Less than Significant. Expansive soils shrink/swell when subjected to moisture fluctuations, which could cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Building damage due to moisture changes in expansive soils could be reduced by appropriate grading practices and using post-tensioned slab foundations or similarly stiffened foundation systems which are designed to resist the deflections associated with soil expansion. As noted previously, the project site contains Hanford gravelly sandy loam (8.91 acres), Tailings (7.27 acres) and Water (3.46 acres). Construction would occur on the Hanford gravelly sandy loam soil type. The Hanford series consists of very deep, well drained soils that formed in moderately coarse textured alluvium dominantly from granite. Hanford soils are on stream bottoms, floodplains and alluvial fans and have slopes of 0 to 15 percent. Additionally, the shrink-swell potential of this soil is low (USDA NRCS, 2021). Therefore, impacts would be **less than significant** relative to this topic.

Response e): Less than Significant with Mitigation. The project site currently contains a mobile home that is served by a water well system and an elevated/bermed septic tank and seepage tank. A septic system will be added to serve the event restroom. The septic will be similar to the existing septic system that serves the existing mobile home. This includes a dedicated leach field, septic tank, and mound system with electric pump. Additionally, a grease trap would be provided by the catering and storage building. The existing septic tank and seepage tank located

near the existing mobile home would remain as part of the project to serve the new residence once the mobile home is removed.

Septic suitability is dependent on the underlying soils of a site. If soils have sufficient limitations soil reclamation, and special design and installation techniques would be required.

The Merced County Public Health Department, Environmental Health Division, is charged with managing the siting of septic systems. Specifically, the County Environmental Health Division reviews proposals and criteria for septic system designs and inspects construction of new septic systems and repair of existing systems to determine conformance with applicable codes. The County also manages the proper disposal of liquid waste collected from licensed haulers through a permit issuance and inspection process.

If not designed correctly, septic systems could result in health impacts, adversely affect natural habitat, and pollute groundwater. This impact is therefore considered to be potentially significant. Mitigation Measure GEO-3 requires that a Septic Feasibility Study be completed and submitted to the County. Mitigation Measure GEO-4 requires that the septic system and leach field would be reviewed and constructed to comply with all applicable requirements of the Merced County Public Health Department, Environmental Health Division, which provides standards for the site evaluation, design, inspections, and permitting of sewage disposal systems, as well as County regulations addressing septic systems included in Chapter 9.54 of the County Code (Regulation of On-Site Wastewater Treatment Systems).

With the implementation of Mitigation Measures GEO-3 through GEO-5, the proposed project would have a **less than significant** impact relative to this topic.

Mitigation Measures

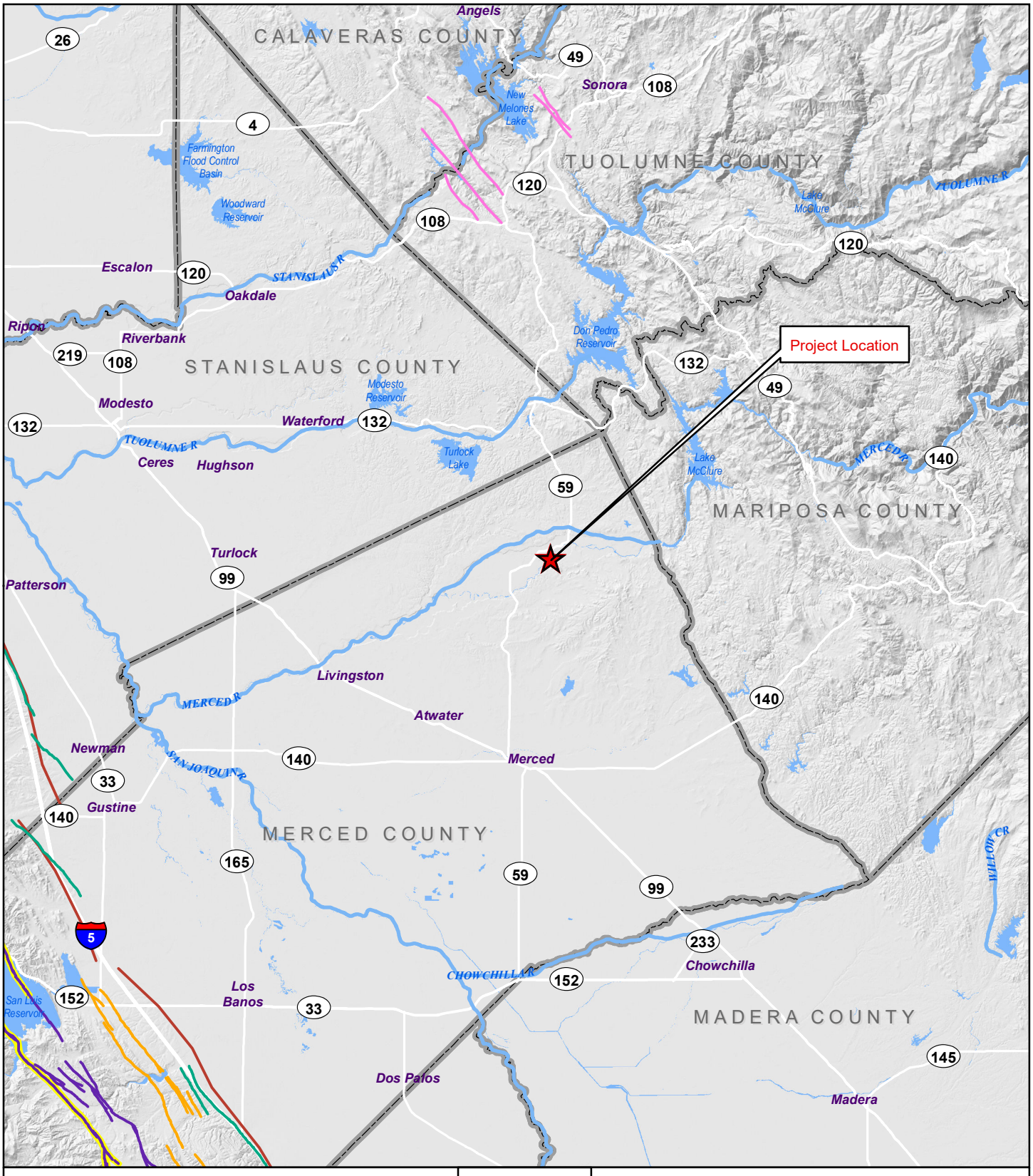
Mitigation Measure GEO-3: *Prior to the issuance of a building permit, the project proponent shall submit a Septic Feasibility Study which includes exploration to be conducted to demonstrate the feasibility of the on-site sewage disposal for the proposed project, and that the disposal area is consistent with the sizing requirements identified in the subsequent exploration complies with the County's requirements for an on-site septic system. The Septic Feasibility Study shall be submitted to the Merced County Public Health Department, Environmental Health Division, for review.*

Mitigation Measure GEO-4: *Prior to the issuance of a building permit, the project proponent shall demonstrate to the satisfaction of the Merced County Public Health Department, Environmental Health Division, that the requirements of the County, including conformance with the County Code and the County's On-Site Wastewater Treatment Systems Local Agency Management Program (LAMP) are met and that any recommendations of the Septic Feasibility Study are implemented.*

Mitigation Measure GEO-5: *Prior to the issuance of a building permit, the project proponent shall obtain all required permits and approvals for the construction of the on-site septic system from the Merced County Public Health Department, Environmental Health Division. All required conditions identified through review by the Environmental Health Division shall be incorporated into the final design and construction of the on-site septic system.*

Response f): Less than Significant. Known paleontological resources or sites are not located on the project site. Additionally, unique geologic features are not located on the site. The site is currently undeveloped, lined with orchards, and surrounded by existing or future urban development. As discussed in Section V, Cultural Resources, should artifacts or unusual amounts of stone, bone, or shell be uncovered during construction activities, an archeologist should be

consulted for an evaluation. Implementation of Mitigation Measure CUL-1 would require investigations and avoidance methods in the event that a previously undiscovered cultural resource is encountered during construction activities. With implementation of Mitigation Measure CUL-1, impacts to paleontological resources or unique geologic features are not expected. This is a **less than significant** impact.



LEGEND

- Foothills fault system
- Great Valley thrust fault system
- O'Neill fault system
- Ortigalita fault zone
- San Joaquin fault

Sources: California State Geoportal, USGS. Map date: October 27, 2020.

0 2½ 5
Miles

SNELLING ROAD EVENT CENTER
MERCED COUNTY, CALIFORNIA

Figure 8. Earthquake Faults

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LEGEND

- Project Area (19.64 acres)
- HdA - Hanford gravelly sandy loam (8.91 acres)
- Ta - Tailings (7.27 acres)
- W - Water (3.46 acres)

Sources: Merced County GIS; USDA NRCS, Merced Area, California (CA648), spatial v6, tabular v15; ArcGIS Online World Imagery Map Service. Map date: January 17, 2021.

N

0 50 100

Feet

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Figure 9. Project Site Soils

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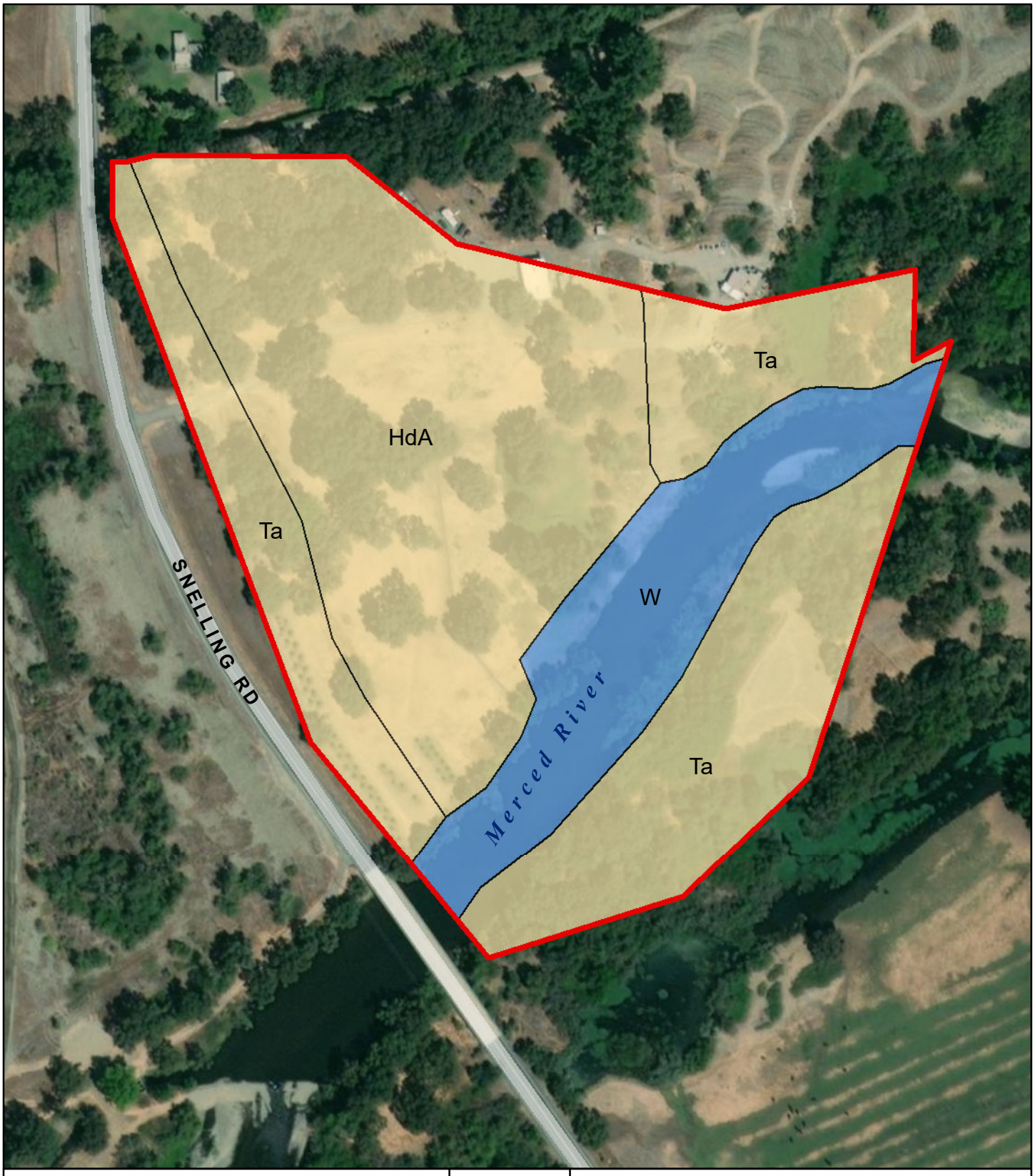

LEGEND

- Project Area (19.64 acres)
- Low Shrink-Swell Potential (16.18 acres)
- Water/Not Applicable (3.46 acres)

Sources: Merced County GIS; USDA NRCS, Merced Area, California (CA648), spatial v6, tabular v15; ArcGIS Online World Imagery Map Service. Map date: January 17, 2021.

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Feet

SNELLING ROAD EVENT CENTER
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Figure 10. Shrink-Swell Potential of Soils

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VIII. GREENHOUSE GAS EMISSIONS

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

BACKGROUND

Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation.

Naturally occurring GHGs include water vapor (H_2O), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and ozone (O_3). Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also GHGs, but they are, for the most part, solely a product of industrial activities. Although the direct GHGs CO_2, CH_4, and N_2O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750) to 2011, concentrations of these three GHGs have increased globally by 40, 150, and 20 percent, respectively (IPCC, 2013).

GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs).

The emissions from a single project will not cause global climate change, however, GHG emissions from multiple projects throughout the world could result in a cumulative impact with respect to global climate change. Therefore, the analysis of GHGs and climate change presented in this section is presented in terms of the proposed project's contribution to cumulative impacts and potential to result in cumulatively considerable impacts related to GHGs and climate change.

Cumulative impacts are the collective impacts of one or more past, present, and future projects that, when combined, result in adverse changes to the environment. In determining the significance of a proposed project's contribution to anticipated adverse future conditions, a lead agency should generally undertake a two-step analysis. The first question is whether the *combined* effects from *both* the proposed project *and* other projects would be cumulatively significant. If the agency answers this inquiry in the affirmative, the second question is whether "the proposed project's *incremental* effects are cumulatively considerable" and thus significant in and of themselves. The cumulative project list for this issue (climate change) comprises anthropogenic (i.e., human-made) GHG emissions sources across the globe and no project alone would reasonably be expected to contribute to a noticeable incremental change to the global climate. However, legislation and executive orders on the subject of climate change in California

have established a statewide context and process for developing an enforceable statewide cap on GHG emissions. Given the nature of environmental consequences from GHGs and global climate change, CEQA requires that lead agencies consider evaluating the cumulative impacts of GHGs. Small contributions to this cumulative impact (from which significant effects are occurring and are expected to worsen over time) may be potentially considerable and, therefore, significant.

RESPONSES TO CHECKLIST QUESTIONS

Response a), b): Less than Significant. GHG emissions would result from both construction and operation of the proposed project. Construction activities associated with the proposed project would result in short-term and temporary carbon dioxide emissions. Other GHG emissions may result during construction depending on type of construction equipment used.

Existing emissions result from the current conditions of the project site as a result of the existing mobile home residence, ancillary facilities, and seasonal or private festivities (such as the seasonal Halloween festivities and occasional wedding activities). Because the proposed event center facilities would only result in the addition of 17 vehicles per day to the project site, carbon dioxide emissions from increased truck and vehicle traffic would be less than significant.

According to the GAMAQI, the project size (1,472 square feet) is substantially below the SJVAPCD's screening level (16,800 square feet of recreational/restaurant land use) for projects expected to emit a substantial amount of criteria pollutants. Based on these numbers, the project is thereby excluded from a quantitative air quality analysis (SJVAPCD 2020). Similarly, the proposed project would make a relatively small contribution to GHG emissions. Therefore, GHG emissions were not quantified.

Because of the low levels of GHG emissions, the proposed project would not be expected to make a substantial contribution of GHG emissions, and a less than significant impact would result.

Response b): Less than Significant. Merced County has not adopted a Climate Action Plan, nor any GHG reductions measures, other than enforcing the provisions of the Green Building Standards Code and the Title 24, Energy Code. Additionally, the California Supreme Court (Center for Biological Diversity v. California Department of Fish and Wildlife) questioned the use of Scoping Plan targets for individual projects. The project would however be required to meet requirements of the Green Building Standards Code and the Title 24, Energy Code. Therefore, the project would not conflict with implementation of an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. In light of the aforementioned factors, the impact on any GHG plan, policy, or regulation, including those adopted by the CARB and the SJVAPCD, would be less than significant.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

EXISTING SETTING

The project site was formerly used for dredge mining operations, and has remnant gravel/rock tailing piles from the dredging activities. The project site currently contains a mobile home that is served by a water well system and an elevated/bermed septic tank and seepage tank. The project site has several ancillary facilities including a shop building, kennel for two dogs, and a gasoline tank. These developed areas are accessed by an existing gravel driveway and gravel roadway off Snelling Road. The remainder of the site is undeveloped and contains ruderal grasses, scattered trees, and the Merced River.

Irrigation and electrical utilities are in place from the current landscaping in the event area. A septic system will be added to serve the event restroom. The septic will be similar to the existing septic system that serves the existing mobile home.

A "hazardous material" is a substance or combination of substances that, because of its quantity, concentration, physical, chemical, or infectious characteristics, may pose a potential hazard to human health or the environment when handled improperly. Within typical construction sites, materials that could be considered hazardous may include fuels, motor oil, grease, various lubricants, solvents, soldering equipment, and glues.

A "hazardous waste" because of its nature, presents the same risk to human health as hazardous material. Proper management of hazardous materials and hazardous wastes are integrated; both substances present the same threat to the environment when improperly managed to soil or groundwater or through airborne release in vapors, fumes or dust. The California Code of Regulations (Title 22, Sections 66261.20-24) contains technical descriptions of characteristics that could cause soil or groundwater to be classified as hazardous waste.

STATE REGULATIONS

Statewide, the California Environmental Protection Agency's Department of Toxic Substances Control (DTSC) has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the state. The federal Environmental Protection Agency (EPA) regulates the management of hazardous materials and wastes. The primary federal hazardous materials and waste laws are contained in the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Toxic Substances Control Act (TSCA). These laws apply to hazardous waste management, soil and groundwater contamination, and the controlled use of particular chemicals. In California, the federal EPA has delegated most of its regulatory responsibilities to the state.

Besides the DTSC, the state agencies most involved in enforcing public health and safety laws and regulations include the California Occupational Safety and Health Administration (Cal/OSHA), the Office of Emergency Services, the SWRCB, the RWQCB, the California Air Resources Board (CARB), and the California Integrated Waste Management Board (CIWMB). The California Governor's Office of Planning and Research annually publishes a listing of potential and confirmed hazardous waste sites throughout the State of California under Government Code Section 65962.5, known as the Cortese List, based on input from the DTSC, SWRCB, CARB, and the CIWMB.

OVERSIGHT AGENCIES

Multiple federal agencies regulate the use, storage, transport, and disposal of hazardous materials, including the U.S. Environmental Protection Agency, the Occupational Safety and Health Administration (OSHA), the U.S. Department of Energy, and the U.S. Department of Transportation. Applicable federal regulations are contained primarily in Title 40 (Chapter I – U.S. Environmental Protection Agency), Title 29 (Chapter XVII – OSHA), Title 10 (Chapter X – U.S. Department of Energy), and Title 49 (Chapter I – U.S. Department of Transportation) of the Code of Federal Regulations. Title 40, Chapter 1, regulates water and air contamination, pesticide use, toxic substances, emergency planning, and solid and liquid wastes. Title 29, Chapter 17, regulates worker safety and health concerning environmental hazards, and Title 10, Chapter 10, regulates petroleum-based products. Title 49, Chapter 1, regulates the transportation of hazardous materials, and details hazardous material spill/release prevention and response plans.

The California Hazardous Waste Control Law is administered by the California Environmental Protection Agency to regulate hazardous wastes. Although the Hazardous Waste Control Law is generally more stringent than Resource Conservation and Recovery Act, until the U.S.

Environmental Protection Agency approves the California program, both the state and federal laws apply in California. The Hazardous Waste Control Law lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal and transportation; and identifies some wastes that cannot be disposed of in landfills.

The California Department of Toxic Substances Control (DTSC) enforces hazardous waste laws and regulations. DTSC takes enforcement action against violators; oversees cleanup of hazardous wastes on contaminated properties; makes decisions on permit applications from companies that want to store, treat or dispose of hazardous waste; and protects consumers against toxic ingredients in everyday products.

The Merced County Office of Emergency Services (OES) is the emergency management agency for Merced County. OES coordinates the County government's response to disaster or other large-scale emergency. OES coordinates with partner agencies including the six unincorporated cities within the county, special districts, and key private agencies in providing planning, response, recovery, and mitigation activities as a result of disaster-related incidents.

The Federal Emergency Management Agency (FEMA) has targeted natural disaster loss reduction as one of its primary goals. Pursuant to the Disaster Mitigation Act of 2000, local jurisdictions are required to have a FEMA-approved *Local Hazard Mitigation Plan* (LHMP) to better position resources in advance of a disaster and to maintain eligibility for certain disaster assistance and hazard mitigation funding programs. In February 2017, OES published an *Emergency Operations Plan Basic Plan* for Merced County. During the developing of this plan, the Merced Operational Area, the cities and unincorporated areas of Merced County, completed the process of developing a Multi-Jurisdictional LHMP that provides hazard specific details as to the mitigation measures taken to create a safer community.

HAZARDOUS DATABASES

The project site has not been identified in any of the reviewed hazardous databases (i.e. DTSC Envirostor, State Water Resources Control Board GeoTracker), nor is the site on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The closest site identified by DTSC Envirostor is a Federal Superfund site (Castle AFB/County of Merced Parcels – Site 80001230) located approximately 11.1 miles southeast of the project site. The closest site identified by Geotracker is a closed Leaking Underground Storage Tank (LUST) cleanup site (Snelling Chevron – Site T0604700353) located approximately 0.9 miles to the northeast of the project site in Snelling. This LUST site has completed the required cleanup and has a status of "Completed – Case Closed".

OTHER CONDITIONS

The proposed project site is not located within an airport land use plan, within the vicinity of a private airstrip, or adjacent to wildlands with a significant risk of wildland fires. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. The proposed project would involve site re-grading of the existing parking area for the proposed parking lot, grading for the proposed facilities (catering and storage building, restroom and changing room building, and gazebo), construction of the storm drain and septic facilities, improvements to the existing driveways and internal roadways, construction of on-site amenities (catering and storage building, restroom and changing room building, and gazebo), and ultimate operation of the event and recreation area on the project site. It is possible that equipment used at the site during site construction activities could utilize substances considered by regulatory bodies as hazardous, such as diesel fuel and gasoline; however, significant quantities of hazardous material would not be stored on-site. All construction activities would be required to comply with all State of California and local laws, ordinances and procedures. Proper management of hazardous materials and hazardous wastes are integrated; both substances present the same threat to the environment when improperly managed. However, potential impacts related to the routine transport, use and disposal of hazardous materials would be **less than significant**.

The project applicant and construction contractor would implement feasible BMPs during construction to ensure conformity with applicable regulations and further minimization of the potential negative effects of routine use of hazardous materials. These include:

- Follow manufacturer's recommendations on use, storage, and disposal of chemical products used in construction;
- Avoid overtopping construction equipment fuel gas tanks;
- During routine maintenance of construction equipment, properly contain and remove grease and oils; and
- Properly dispose of discarded containers of fuels and other chemicals.

The operational phase of the proposed project would occur after construction is completed and the event area is available for events such as weddings, fundraisers, receptions, reunions, festivals, and farm-to-table classes. None of the project uses would routinely transport, use, or dispose of significant amounts of hazardous materials, or present a reasonably foreseeable release of hazardous materials, with the exception of common cleaning and landscaping hazardous materials such as household cleaners, paint, motor fuels, pesticides, etc. that would be used and stored in small quantities.

During the storage and/or use of chemical products, the risk of an accidental release exists. However, based on the types and quantities of hazardous substances anticipated to be used, the risk of a release of a significant quantity of hazardous substances is considered minimal and commensurate with similar land uses. Recreational/event land uses do not typically involve the heavy usage, transport, or disposal of hazardous materials and only a minimal amount of routine day-to-day routine cleaning and maintenance materials would be stored on-site. Additionally, the applicant is required to comply with the applicable federal, state, and local regulations related to the use, transportation, and storage of hazardous materials. Therefore, there is a very limited risk of the proposed project creating a significant hazard to the public or environment, through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions, during either project construction or operation. There is a **less than significant** impact relative to these topics.

Response c): Less than Significant. The project site is not located within ¼ mile of any existing or proposed school. The closest existing school to the project site is the Snelling-Merced Falls

Elementary School, located approximately 1.26 miles northeast of the project site. Additionally, the proposed project would not routinely emit hazardous emissions or handle hazardous materials, substances, or waste, as described in response a) and b). Therefore, there is a **less than significant** impact relative to this topic.

Response d): No impact. The project site has not been identified in any of the hazardous databases nor is the site on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As a result, the proposed project would not create a significant hazard to the public or the environment. As a result, the proposed project would have **no impact** under this criterion.

Response e): No impact. The project site is not located near an existing airport and is not within an existing airport land use plan. The project site is approximately 3.7 miles from the nearest airport, Bonanza Hills Airport. The project site is not located within the approach or take-off zones of Bonanza Hills Airport or any other airport, nor is it located within the overflight zones of any airports. The distance of this airport from the project site is sufficiently far away so that no safety hazard exists to the people living or working in the area. Therefore, the proposed project would have a **less than significant** impact relative to this topic due to proximity to a nearby private airstrip.

Response f): Less than Significant. Implementation of the proposed project would not result in any modifications to the existing roadway system and would not interfere with potential evacuation or response routes used by emergency response teams. The proposed project would also not interfere with any emergency response plan or emergency evaluation plan. The entrances to the proposed project (Snelling Road) is sufficiently wide to allow for emergency access in the event of emergency. There is a **less than significant** impact relative to this topic.

Response g): Less than Significant. The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point, while fuels such as trees have a lower surface area to mass ratio and require more heat to reach the ignition point.

The southern portion of the project site containing and south of the Merced River is within a State Responsibility Area (SRA), Moderate Fire Hazard Severity Zone (FHSZ). The portion of the project site where proposed development would occur is not within an SRA. The community of Snelling and the project site are not categorized as a "Very High" FHSZ by CalFire. With compliance with the conditions of approval as provided by the Merced County Fire Department, this is a **less than significant** impact.

X. HYDROLOGY AND WATER QUALITY

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

EXISTING SETTING

The project site was formerly used for dredge mining operations, and has remnant gravel/rock tailing piles from the dredging activities. The project site currently contains a mobile home that is served by a water well system and an elevated/bermed septic tank and seepage tank. The project site has several ancillary facilities including a shop building, kennel for two dogs, and a gasoline tank. These developed areas are accessed by an existing gravel driveway and gravel roadway off Snelling Road.

The remainder of the site is undeveloped and contains ruderal grasses, scattered trees, and the Merced River. The terrain is predominantly flat with slopes increasing to the northwest and decreasing to the southeast. The project site's elevation ranges between 252 to 241 feet above MSL.

Besides the Merced River, no other potential jurisdictional wetlands or Waters of the United States are located on the site. No other areas were observed within or adjacent to the site appearing to have any potential to fall under Army Corp of Engineers jurisdiction. Additionally, no streams, ditches, vernal pools, seasonal wetlands, lakes, or riparian wetlands of any type were observed on the project site (De Novo Planning Group, 2021).

Flooding and Dam Inundation

The 100-year floodplain denotes an area that has a one percent chance of being inundated during any particular 12-month period. Floodplain zones (Special Flood Hazard Areas [SFHA]) are determined by the FEMA and used to create Flood Insurance Rate Maps (FIRMs). As shown in Figure 12, the project site is located in the 100-year flood zone.

As shown in Figure 13, the project site is susceptible to flooding that could occur as a result of dam failure of the New Exchequer Dam, McSwain Dam (Lake McClure), and Merced Falls Dam. Such failures are rare and are typically associated with seismic activity. The project site is not at risk for other extreme hydrologic events, such as seiche, tsunami, or mudflow.

NPDES Requirements

The federal Clean Water Act requires that all municipal, industrial and commercial facilities that discharge wastewater or stormwater directly from a point source (a discrete conveyance such as a pipe, ditch or channel) into a water of the United States (such as a lake, river, or ocean) must obtain a National Pollutant Discharge Elimination System (NPDES) permit. All permits are written to ensure the receiving waters will achieve their **Water Quality Standards**.

NPDES discharges can be permitted with an individual permit or covered under a general permit. **Individual permits** are written to address the specific design and applicable water quality standards to an individual facility while **General permits** authorize a category of discharges within a geographical area. The majority of construction sites and industrial facilities which discharge stormwater are permitted under general NPDES permits. NPDES General Permit for Construction (Order 2009-009-DWQ), effective July 17, 2012, would be applicable for construction activities of the proposed project. Under Order 2009-009-DWQ, dischargers who disturb one or more acres of soil are required to develop a SWPPP by a certified Qualified SWPPP Developer (QSD).

Additionally, under SWRCB Water Quality Order No. 2003-2005-DWQ, Merced County was tasked with creating a Storm Water Management Plan that outlines BMPs to achieve the removal of pollutants from storm water to the maximum extent possible. As of February 5, 2013, the SWRCB adopted SWRCB Water Quality Order No. 2013-0001-DWQ to modify existing SQRCB Water Quality Order No. 2003-2005-DWQ. The Merced Storm Water Group *Storm Water Management Program* (2007) and Chapter 9.53 of the Merced County Code outline BMPs that may be applicable to the proposed project. Ordinance No. 1923: Stormwater Ordinance was enacted by Merced County in 2014 to carry out the enforcement measures found in the SWRCB Order No. 2013-0001-DWQ, which amended Chapter 9.53 of the Merced County Code.

Except for the exemptions described in Chapter 9.53 of the Merced County Code, development projects within Merced County must obtain all applicable County stormwater permits, subject to approval from the Merced County Director of Public Works.

Groundwater

The U.S. Department of Agriculture, the Governor of California, and the board of supervisors have recognized the detrimental impact of drought conditions on Merced County in recent years. On January 15, 2014, the U.S. Department of Agriculture designated twenty-seven (27) counties in California, including Merced County, as primary natural disaster areas due to the recent drought and on January 17, 2014 the Governor of California declared that a state of emergency exists in the state of California due to current drought conditions. On February 25, 2014, the Merced County board of supervisors passed Resolution No. 2014-16, proclaiming that "[a] local drought emergency now exists in Merced County," and finding that, "conditions of extreme peril to the safety of persons and property have arisen within the County of Merced caused by the drought".

Later in 2014, Governor Jerry Brown signed three laws collectively known as the Sustainable Groundwater Management Act (SGMA), requiring local management of groundwater. For the first time in California history, the SGMA established a framework for sustainable, local groundwater management. Merced County includes portions of four groundwater subbasins requiring sustainable groundwater planning and management under SGMA. The subbasin underlying the Hilmar community (Subbasin 5-22.03) is currently subject to this requirement. Each subbasin subject to this requirement is required to implement a Goundwater Sustainability Plan (GSP), developed and managed by locally-driven Groundwater Sustainability Agencies (GSAs). All GSPs in Merced County are required to be developed by 2020 or 2022, depending on the determination of overdraft conditions. The project site is located within the boundaries of the Merced Subbasin GSA.

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. There is a total of 1,690 square feet of new building area for the outdoor event and recreation area, which will add an insignificant amount of impervious surface to the property relative to the total pervious surfaces available. The parking area will remain as an unpaved and pervious surface so there is not a need for any significant storm drainage design. The small amount of drainage that would result from the additional buildings would be controlled by a small drainage ditch system that would be submitted with the building plans. It is not anticipated that any new storm drainage is warranted for the existing access roads or unpaved parking area given they will remain pervious. A full basin or outfall is not necessary for the small amount of impervious surface added to the site.

Additionally, grading and construction activities associated with project development could contribute to increased erosion and sedimentation. During construction, accidental releases of fuel, hydraulic fluid, paints, solvents, and similar materials could degrade stormwater quality. Furthermore, the establishment of recreational uses on the project site could introduce water pollutants such as motor vehicle fluids, pesticides and other landscaping chemicals, and other consumer products (soap, paint, etc.) associated with operation of the event facilities into the runoff.

Construction specifications require the preparation of a SWPPP prior to any ground disturbance activities as required by the NPDES General Permit (GP) for Construction (Order 2009-009-DWQ). The SWPPP would provide the details of the erosion control measures to be applied on

the project site during the construction period, including BMPs for erosion control that are recognized by the RWQCB.

The proposed project would conform to all applicable requirements and provisions under SWRCB Order No. 2013-0001-DWQ. The proposed project would comply with requirements established within Chapter 9.53 of the Merced County Code, including conformance to all applicable BMPs.

Compliance with these requirements would ensure that potential water quality impacts resulting from construction and operation would be reduced to **less than significant** levels.

Response b): Less than Significant. The existing water well system would serve the proposed event facilities, including the catering building and restroom building. Water demand resulting from the proposed project would increase compared to the existing condition as a result of the proposed catering building and restroom building use. However, the project would add an insignificant amount of impervious surface to the property relative to the total pervious surfaces available. The pervious areas on-site would provide opportunities for groundwater recharge.

Overall, it is expected that the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. This impact would be **less than significant**.

Response c): Less than Significant. As noted previously, development of the proposed project, when complete, would result in a slight increase in impervious surfaces that have the potential to result in a reduction in the amount of natural soil surfaces available for the infiltration of rainfall and runoff, thereby generating additional runoff during storm events. The grading and development of the project site would change the existing drainage patterns.

However, the small amount of drainage that would result from the additional buildings would be controlled by a small drainage ditch system that would be submitted with the building plans. It is not anticipated that any new storm drainage is warranted for the existing access roads or unpaved parking area given they will remain pervious. A full basin or outfall is not necessary for the small amount of impervious surface added to the site.

Incorporation of the aforementioned proposed project drainage system and compliance with the NPDES requirements, including preparation of a SWPPP prior to any ground disturbance activities as required by the NPDES General Permit for Construction (Order 2009-009-DWQ), and other applicable requirements as provided by SWRCB Order No. 2013-0001-DWQ, as well as compliance with Chapter 9.53 of the Merced County Code, would ensure that the proposed project would not substantially alter the existing drainage pattern of the site or area, in a manner that would result in substantial erosion or siltation, flooding, or exceed the capacity of the existing or planned stormwater drainage systems.

The Merced County Department of Public Works reviews all storm drainage plans as part of the improvement plan submittal to ensure that all facilities are designed to the County's standards and specifications. Mitigation Measure HYD-1 will require the post-project runoff to be equal to or less than pre-project runoff, which would ensure that the proposed project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. The storm drainage plan will require the construction of new storm water drainage facilities on the project site; however, the construction of these facilities would not substantially alter the existing drainage pattern of the area, or alter the course of a stream or

river. Implementation of the proposed project with the following mitigation measure would have a ***less-than-significant*** impact relative to this environmental topic.

Mitigation Measure

Mitigation Measure HYD-1: *Prior to the issuance of a building permit, the project proponent shall submit a Storm Drainage Plan which shall be designed and engineered in accordance with the Merced County Department of Public Works Improvement Standards and Specifications, and Chapter 9.53 (Regulation of Stormwater) of the County Code. The Storm Drainage Plan shall be submitted to the Merced County Department of Public Works for review.*

Response d): Less than Significant. The risks of flooding hazards in the community and immediate surroundings are related to large, infrequent storm events, as well as the potential for dam inundation. Risks of flooding from storm events are greatest during the rainy season between November and March. Flooding events can result in damage to structures, injury or loss of human and animal life, exposure to waterborne diseases, and damage to infrastructure. In addition, standing floodwater can destroy agricultural crops, undermine infrastructure and structural foundations, and contaminate groundwater.

As noted previously, the project site is located in the 100-year flood zone. The project site is also susceptible to flooding that could occur as a result of dam failure of the New Exchequer Dam, McSwain Dam (Lake McClure), and Merced Falls Dam.

Dam failure is generally a result of structural instability caused by improper design or construction, instability resulting from seismic shaking, or overtopping and erosion of the dam. As discussed previously, larger dams that are higher than 25 feet or with storage capacities over 50 acre-feet of water are regulated by the California Dam Safety Act, which is implemented by the California Department of Water Resources, Division of Safety of Dams (DSD). The DSD is responsible for inspecting and monitoring these dams. The Act also requires that dam owners submit to the California Office of Emergency Services inundation maps for dams that would cause significant loss of life or personal injury as a result of dam failure. The County Office of Emergency Services is responsible for developing and implementing a Dam Failure Plan that designates evacuation plans, the direction of floodwaters, and provides emergency information.

Regular inspection by DSD and maintenance by the dam owners ensure that the dams are kept in safe operating condition. As such, failure of these dams is considered to have an extremely low probability of occurring and is not considered to be a reasonably foreseeable event.

The proposed project would not risk release of pollutants due to project inundation. As such, the impact is **less than significant** relative to this topic.

Response e): Less than Significant. Commonly practiced BMPs, as required by the NPDES Construction General Permit and the SWPPP, would be implemented to control construction site runoff and reduce the discharge of pollutants from stormwater and other nonpoint-source runoff to storm drain systems. As part of complying with permit requirements during ground-disturbing or other construction activities, water quality control measures and BMPs would be implemented to ensure that water quality standards would be achieved, including water quality objectives that protect designated beneficial uses of surface water and groundwater, as defined in the Basin Plan. Construction and operation would comply with the appropriate water quality objectives for the region, including NPDES requirements regarding runoff.

Further, General Plan policies require groundwater resources to be protected, as required by a sustainable groundwater management plan. Project operations would not increase demands for groundwater. The sustainable groundwater management plan for the project area was adopted in January 2020. As noted previously, the project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Overall, the project would not conflict with or obstruct implementation of the Basin Plan or a sustainable groundwater management plan. Impacts would be **less than significant**.

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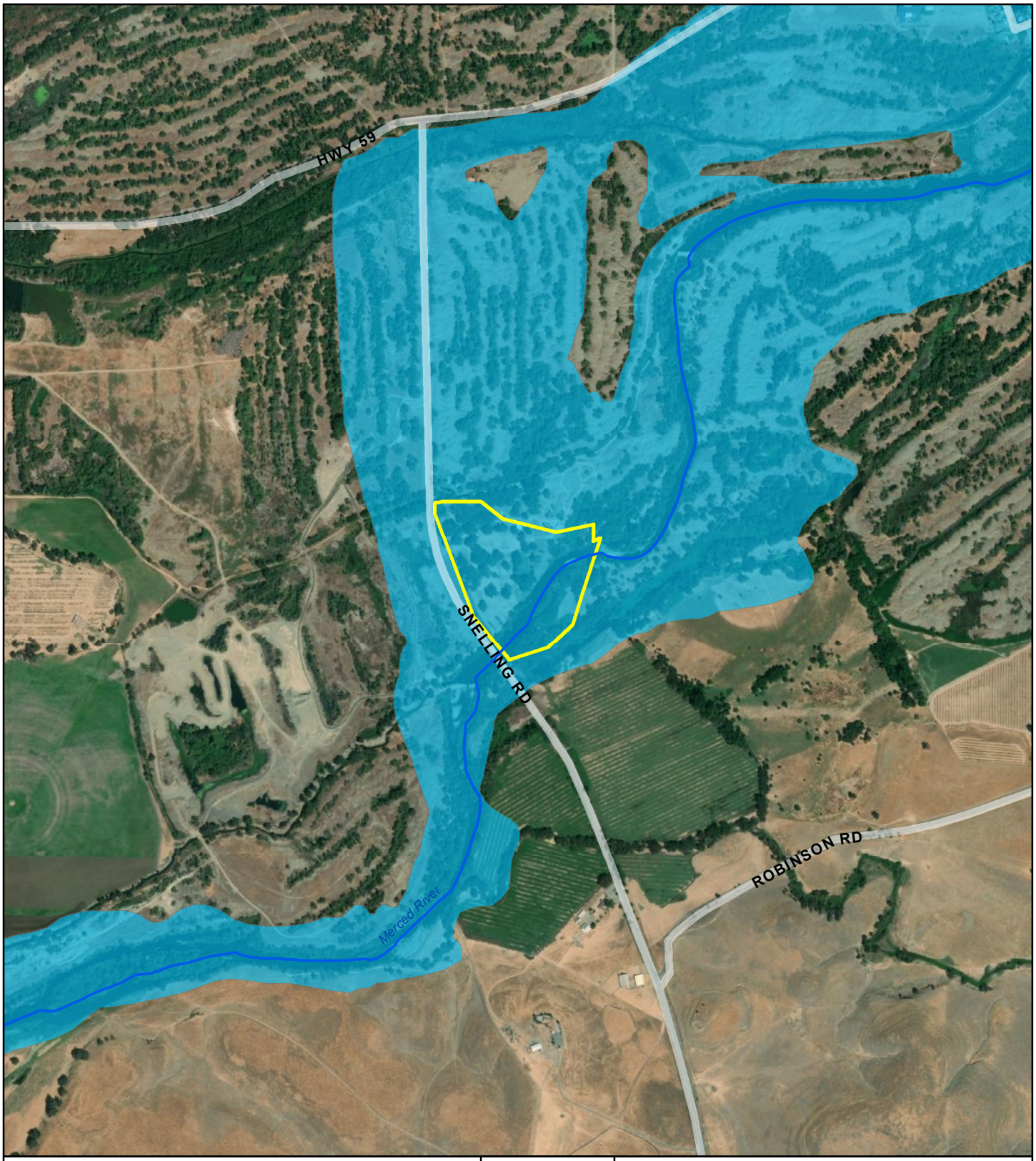

LEGEND

Project Boundary

FEMA Designation

100-Year Flood Zone

unshaded Area of Minimal Flood Hazard

Sources: Merced County GIS; ArcGIS Online World Imagery Map Service; FEMA Map Service Center. Map date: October 27, 2020.

N

0 250 500

Feet

SNELLING ROAD EVENT CENTER
MERCED COUNTY, CALIFORNIA

Figure 12. FEMA Map

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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LEGEND

Project Boundary

Dam Inundation Areas

McSwain Dam (Lake McClure)

Merced Falls Dam

New Exchequer Dam

Sources: Merced County GIS; ArcGIS Online World Imagery Map Service; California OES. Map date: October 27, 2020.

N

0 250 500

Feet

SNELLING ROAD EVENT CENTER
MERCED COUNTY, CALIFORNIA

Figure 13. Dam Inundation Areas

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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XI. LAND USE AND PLANNING

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

EXISTING SETTING

The project site is located near the unincorporated community of Snelling in northern Merced County. The project site was formerly used for dredge mining operations, and has remnant gravel/rock tailing piles from the dredging activities. The project site currently contains a mobile home that is served by a water well system and an elevated/bermed septic tank and seepage tank. The project site has several ancillary facilities including a shop building, kennel for two dogs, and a gasoline tank. These developed areas are accessed by an existing gravel driveway and gravel roadway off Snelling Road. The project site is surrounded primarily by existing open space areas, agricultural uses, and rural residential land uses. The nearest residence is located approximately 0.36 miles south of the southern site boundary. Downtown Snelling is located approximately 0.95 miles northeast of the site.

The proposed project includes the construction of a 736-sf catering and storage building, 736-sf restroom and changing room building, 218-sf gazebo, and parking area onto the site. The proposed project would require approval of a CUP to allow for the proposed outdoor events.

Surrounding Land Uses

The project site is surrounded primarily by existing open space areas, agricultural uses, and rural residential land uses. The nearest residence is located approximately 0.36 miles south of the southern site boundary. Downtown Snelling is located approximately 0.95 miles northeast of the site.

General Plan

The project site is designated Agricultural (A) by the 2030 Merced County General Plan. The A land use designation provides for cultivated agricultural practices which rely on good soil quality, adequate water availability, and minimal slopes. This is the largest County land use designation by area in the County and is typically applied to areas on the valley floor. The minimum lot or parcel size for the Agricultural designation is 40 acres, the maximum number of dwelling units per gross acre is 0.025, and the maximum non-residential FAR is 0.10. The proposed project is generally consistent with the land use designation for the site; however, the project site is smaller than the minimum lot or parcel size of 40 acres.

The existing General Plan land use map is shown in Figure 5.

Zoning

The project site is zoned A2 by the County. The purpose of the A2 zone is to provide for areas with considerably expanded agricultural enterprises, due mainly to the requirement of large parcels which are more economically suitable to support farming activities. The 160-acre minimum parcel size facilitates farming and ranching operations and a variety of open space functions that are typically less dependent on soil quality and are often connected more with foothill and wetlands locations; grazing and pasture land; and wildlife habitat and recreational areas. Recreational events and weddings are conditionally permitted within the A2 Zone. As such, the proposed project would require approval of a CUP to allow for the proposed outdoor events.

The existing zoning designation map is provided in Figure 5.

RESPONSES TO CHECKLIST QUESTIONS

Response a): No Impact. The project site is located within the unincorporated portion of Merced County near the community of Snelling. The project site currently contains a mobile home and several ancillary facilities including a shop building, kennel for two dogs, and a gasoline tank. Development of the project site would not result in the physical division of an established community. Therefore, the development of the proposed project would have **no impact** related to this topic.

Response b): Less than Significant. The project site is designated Agricultural by the 2030 Merced County General Plan. The Agricultural (A) land use designation provides for cultivated agricultural practices which rely on good soil quality, adequate water availability, and minimal slopes. This is the largest County land use designation by area in the County and is typically applied to areas on the valley floor. The minimum lot or parcel size for the Agricultural designation is 40 acres, the maximum number of dwelling units per gross acre is 0.025, and the maximum non-residential FAR is 0.10. The proposed project is generally consistent with the land use designation for the site; however, the project site is smaller than the minimum lot or parcel size of 40 acres.

The project site is zoned A2 by the County. The purpose of the A2 zone is to provide for areas with considerably expanded agricultural enterprises, due mainly to the requirement of large parcels which are more economically suitable to support farming activities. The 160-acre minimum parcel size facilitates farming and ranching operations and a variety of open space functions that are typically less dependent on soil quality and are often connected more with foothill and wetlands locations; grazing and pasture land; and wildlife habitat and recreational areas. Recreational events and weddings are conditionally permitted within the A2 Zone. As such, the proposed project would require approval of a CUP to allow for the proposed outdoor events. With the proposed CUP, the project would comply with this zoning designation.

The proposed project has been reviewed for consistency with Merced County Code and zoning requirements that relate to avoiding or mitigating an environmental effect. The majority of the Merced County Code requirements that relate to environmental issues are associated with environmental topics such as geology and soils, hazards, hydrology and water quality, traffic, noise, and the provision of public services and utilities. The project's consistency with these requirements is discussed in the relevant sections of this document.

Therefore, the proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect and impacts associated with this topic would be **less than significant**.

XII. MINERAL RESOURCES

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

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. The project site was formerly used for dredge mining operations, and has remnant gravel/rock tailing piles from the dredging activities. The project site currently contains a mobile home that is served by a water well system and an elevated/bermed septic tank and seepage tank. The project site has several ancillary facilities including a shop building, kennel for two dogs, and a gasoline tank.

Mineral resources of value to the region have not been mined at the site for over 25 years. There is no existing mineral extraction possible at the property. Additionally, there are no oil and gas extraction wells within or near the property. Further, there are no significant deposits of mineral resources located on the project site, as delineated by the Mineral Resources and Mineral Hazards Mapping Program (MRMHMP). The project site is not designated as a Mineral Resource Zone (MRZ). Implementation of the proposed project would have a **less than significant** impact relative to this issue.

Response b): Less than Significant. The project site does not contain a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. As noted above, known mineral resources that would be of value to the region no longer exist within the project site. The proposed project would not result in loss of a mineral resource. Implementation of the proposed project would have a **less than significant** impact relative to this issue.

XIII. NOISE

Would the project result in:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

EXISTING SETTING

The following is based on the *Noise Review* that was completed for the project by MD Acoustics (September 2021).

Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large range of numbers. The decibel (dB) scale is used to facilitate graphical visualization of large ranges of numbers. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a graphically practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the

standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels and are expressed in units of dBA, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound power levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. CNEL is similar to L_{dn}, but includes a +5 dBA penalty for evening noise. Typically CNEL and L_{dn} values are within 0.5 dBA of each other and are often considered to be synonymous. Table NOI-1 lists several examples of the noise levels associated with common situations.

Table NOI-1: Typical Noise Levels

Common Outdoor Activities	*Noise Level (dBA)*	*Common Indoor Activities*
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office
Quiet Urban Nighttime	--40--	Theater, Large Conference Room
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human

SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. NOVEMBER 2009.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;

- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dBA per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

Existing Noise Condition and Traffic Data

The Merced County General Plan and Caltrans highway counts were used to determine the existing traffic and subsequent existing noise levels. Traffic counts from 2019 indicate that State Route 59 has an average daily trip (ADT) count of 3,900. Traffic projections to 2030 indicate that Snelling Road has an ADT of 2,800. The Federal Highway Administration (FHWA) Traffic Noise Model methodology was utilized to predict noise levels using these traffic counts (see Appendix B of Appendix D). The overall noise level is expected to be 54 dBA L_{DN}, 53 dBA L_{EQ} during the day, and 51 dBA L_{EQ} in the evening. Evening noise levels and L_{DN} will be used to compare as a worst-case scenario.

Regulatory Setting

The project site is located within unincorporated Merced County. Local regulations are set forth in the Noise Element of the *2030 Merced County General Plan* and the Merced County Code. The County General Plan Noise Element states that new development projects must meet the standards provided in the General Plan, either through project design or mitigation techniques. The General Plan also requires that development projects prepare an acoustical analysis as part of the environmental review process when noise-sensitive land uses are proposed in areas

exposed to existing or projected exterior noise levels exceeding the levels described by the General Plan.

Additionally, the proposed project is required to comply with Chapter 10.60 of the Merced County Code (Noise Control), which prohibits certain noise-generating activities. The County Code prohibits sound that exceeds the background sound level by at least 10 dBA from 7AM to 10PM and 5 dBA from 10PM to 7AM. Noise that exceeds 65 dBA L_{DN} and 75 dBA L_{MAX} on residential property and 70 dBA L_{DN} and 80 dBA L_{MAX} on non-residential property is also prohibited.

Determination of a Significant Increase in Noise Levels

Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3-dB change is barely perceptible,
- A 5-dB change is clearly perceptible, and
- A 10-dB change is perceived as being twice or half as loud.

A limitation of using a single noise level increase value to evaluate noise impacts is that it fails to account for pre-project-noise conditions. Table NOI-4 is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been accepted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the L_{dn}.

Based on the Table NOI-2 data, an increase in the traffic noise level of 5 dB or more would be significant where the pre-project noise levels are less than 60 dB L_{dn}, or 3 dB or more where existing noise levels are between 60 to 65 dB L_{dn}. Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 65 dB L_{dn}. The rationale for the Table NOI-2 criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

Table NOI-2: Significance of Changes in Noise Exposure

Ambient Noise Level Without Project, L_{dn}	*Increase Required for Significant Impact*
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

SOURCE: FEDERAL INTERAGENCY COMMITTEE ON NOISE (FICON)

Methodology

SoundPLAN Acoustic Modeling Software was utilized to model the operational noise levels from the project site. SoundPLAN acoustical modeling software is capable of evaluating stationary

noise sources (e.g., loudspeakers for live events, parking lots, crowds, loading/unloading, patios, etc.). SoundPLAN software utilizes algorithms (based on inverse square law) to calculate noise level projections. The software allows the user to input specific noise sources, spectral content, sound barriers, building placement, topography, and sensitive receptor locations. In addition, SoundPLAN can model the noise sources as point sources, line sources, and area sources. Noise level output data is located in Appendix C of Appendix D.

The future worst-case noise level projections were modeled for a worst-case event with 300 attendees, amplified speech/music, and a full parking lot. Table NOI-3 outlines the referenced noise levels used to calibrate the models.

Table NOI-3: Reference Sound Level Measurements for SoundPLAN Model

Source	*Source Type*	*Reference Level*	*Distance (ft)*
Loud Event (300 people)[1]	Point Source	77 dBA	50
Parking Lot (125 spaces)	Area Source	1 movement/hour	--

NOTE:
[1] SEE REFERENCE LEVEL FROM BOLLARD ACOUSTICS, (WINERY AND FARM BREWING ZONING ACOUSTICAL STUDY, 2019), APPENDIX E OF APPENDIX D. BOLLARD ACOUSTICS MEASURED 75 DBA FOR 100 PEOPLE HOWEVER DOUBLING OR HALVING THE NUMBER OF PEOPLE WOULD RESULT IN A 3 DBA INCREASE OR REDUCTION PER LOGARITHMIC ADDITION FOLLOWING ACOUSTICAL PRINCIPLES.
SOURCE: MDACOUSTICS, 2021.

The project was modeled assuming amplified speech/music at a louder event with up to 300 people and a full parking lot with one movement per parking spot per hour. The SoundPLAN model assumes that all noise sources are operating simultaneously (worst-case scenario), when in actuality the noise will be intermittent and lower in noise level.

Responses to Checklist Questions
Response a): Less than Significant.

Construction Noise

During the construction of the project, including roads, water, sewer lines, and related infrastructure, noise from construction activities would add to the noise environment in the project vicinity. Existing receptors near the proposed construction activities are located north and south of the site. Specifically, the nearest receptors are located approximately 420 feet (0.08 miles) north and 2,440 feet (0.46 miles) south of the proposed construction activities.

The FHWA Roadway Construction Noise Model (RCNM) was used to predict noise levels for standard construction equipment used for roadway improvement projects. The assessment of potential significant noise effects due to construction is based on the standards and procedures described in the Federal Transit Authority (FTA) guidance manual and FHWA's RCNM.

The RCNM is a Windows-based noise prediction model that enables the prediction of construction noise levels for a variety of construction equipment based on a compilation of empirical data and the application of acoustical propagation formulas. The model enables the calculation of construction noise levels in more detail than the manual methods, which eliminates the need to collect extensive amounts of project-specific input data. RCNM allows for the modeling of multiple pieces of construction equipment working either independently or simultaneously, the character of noise emission, and the usage factors for each piece of equipment.

Construction noise varies depending on the construction process, type of equipment involved, location of the construction site with respect to sensitive receptors, the schedule proposed to carry out each task (e.g., hours and days of the week), and the duration of the construction work.

Noise sources in the RCNM database include actual noise levels and equipment usage percentages. This source data was used in this construction noise analysis.

Table NOI-4 shows predicted construction noise levels for each of the project construction phases. provides a list of the types of equipment which may be associated with construction activities and the associated noise levels.

Table NOI-4: Construction Equipment Noise

Type of Equipment	***Predicted Noise Levels, L_{MAX} dB***			
	Noise Level at 50'	***Noise Level at 100'***	***Noise Level at 200'***	***Noise Level at 400'***
Backhoe	78	72	66	60
Compactor	83	77	71	65
Compressor (air)	78	72	66	60
Concrete Saw	90	84	78	72
Dozer	82	76	70	64
Dump Truck	76	70	64	58
Excavator	81	75	69	63
Generator	81	75	69	63
Jackhammer	89	83	77	71
Pneumatic Tools	85	79	73	67

SOURCE: ROADWAY CONSTRUCTION NOISE MODEL USER'S GUIDE. FEDERAL HIGHWAY ADMINISTRATION. FHWA-HEP-05-054. JANUARY 2006.

Activities involved in project construction would typically generate maximum noise levels ranging from 76 to 90 dB at a distance of 50-feet. Noise levels at the nearest receptor, located approximately 420 feet to the north, would range between 58 to 72 dB L_{MAX}. Section 10.60.030 of the Code requires that all construction in or adjacent to urban areas shall be limited to the daytime hours between seven a.m. and six p.m., and all construction equipment shall be properly muffled and maintained. Noise would also be generated during the construction phase by increased truck traffic on area roadways. This noise increase would be of short duration and would likely occur primarily during daytime hours.

Overall, construction noise impacts would be **less than significant**.

Traffic and Operational Noise at Existing Receptors

Receptors 1 through 4 were placed at the property lines based on where noise is projected to be the loudest. Receptor 5 is the nearest sensitive receptor.

Project Operational Noise Levels

Appendix C of Appendix D shows the L_{EQ} operational project noise levels at the property lines. Operational project noise levels at the adjacent uses are anticipated to range between 37 dBA to 56 dBA L_{EQ} (depending on the location), which complies with the County's noise ordinance.

Project Plus Ambient Operational Noise Levels

Table NOI-5 demonstrates the operational Project Noise Levels plus the ambient noise levels which is provided to demonstrate the change in noise level as a result of a large event with amplified speaking or music and parking. Project plus ambient noise level projections are anticipated to range between 55 to 58 dBA L_{EQ} at receptors (Receptors 1 through 5).

Table NOI-5: Event Lawn Scenario 1 – Worst-case Predicted Operational L_{DN}/L_{EQ} Noise Level[1]

Receptor	Existing Ambient Noise Level (dBA)[2]		Project Noise Level (dBA)[3]		Total Combined Noise Level (dBA)		County Limit (dBA)		Exceeds Standard?	Change in Noise Level as Result of Project	
	L_{DN}	L_{EQ}	L_{DN}	L_{EQ}	L_{DN}	L_{EQ}	L_{DN}	L_{EQ}		L_{DN}	L_{EQ}
R1	54	51	51	54	57	56	70	+10	No	+3	+5
R2			46	49	55	53			No	+1	+2
R3			48	51	56	54			No	+2	+3
R4			53	56	58	57			No	+4	+6
R5			34	37	55	51	65	+10	No	+1	+0

NOTES:
[1] RECEPTORS 1-4, REPRESENT THE ADJACENT PROPERTY LINES. RECEPTOR 5 IS THE NEAREST RESIDENTIAL PROPERTY TO THE SOUTH.
[2] SEE APPENDIX B OF APPENDIX D FOR EXISTING NOISE LEVEL CALCULATIONS.
[3] SEE APPENDIX C OF APPENDIX D FOR THE OPERATIONAL NOISE LEVEL PROJECTIONS AT SAID RECEPTORS.
SOURCE: MDACOUSTICS, 2021.

As shown in Table NOI-5, project operations would increase the worst-case noise level by approximately 0 to 5 dBA L_{EQ} at receptors (Receptors 1 through 5). It should be noted that if the noise does not exceed the County's noise ordinance at the project site's property line, it will not exceed the County's noise ordinance at a further distance. Sound dissipation follows the inverse square law principle, which is that sound drops off by six dB for every doubling of distance. Therefore, the project will not exceed the County's daytime noise limit of 70 dBA L_{DN} and +10 dBA L_{EQ} at nonresidential properties and 65 dBA L_{DN} and +10 dBA L_{EQ} at residential properties.

No sound levels would exceed the County's standard. This is a **less-than-significant** impact and no mitigation is required.

Response b): Less than Significant. Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

Human and structural response to different vibration levels is influenced by several factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table NOI-6 indicates that the threshold for damage to structures ranges from 0.2 to 0.6 peak particle velocity in inches per second (in/sec p.p.v). One-half this

minimum threshold or 0.1 in/sec p.p.v. is considered a safe criterion that would protect against architectural or structural damage. The general threshold at which human annoyance could occur is noted as 0.1 in/sec p.p.v.

Table NOI-6: Effects of Vibration on People and Buildings

Peak Particle Velocity		***Human Reaction***	***Effect on Buildings***
mm/sec.	***in./sec.***		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage.

SOURCE: CALTRANS. TRANSPORTATION RELATED EARTHBORN VIBRATIONS. TAV-02-01-R9601 FEBRUARY 20, 2002.

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading and roadway construction occur. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located approximately 420 feet or further from the project site. At this distance, construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours.

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural. Table NOI-8 shows the typical vibration levels produced by construction equipment.

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural damage.

The Table NOI-7 data indicate that construction vibration levels anticipated for the project are less than the 0.2 in/sec p.p.v. threshold of damage to buildings and less than the 0.1 in/sec threshold of annoyance criteria at distances of 50-feet. Therefore, construction vibrations are not predicted to cause damage to existing buildings or cause annoyance to sensitive receptors. Therefore, this impact would be considered **less than significant**.

Table NOI-7: Vibration Levels for Varying Construction Equipment

Type of Equipment	*Peak Particle Velocity @ 50 feet (inches/second)*	*Peak Particle Velocity @ 100 feet (inches/second)*
Large Bulldozer	0.031	0.011
Loaded Trucks	0.027	0.010
Small Bulldozer	0.001	0.000
Auger/drill Rigs	0.031	0.011
Jackhammer	0.012	0.004
Vibratory Hammer	0.025	0.009
Vibratory Compactor/roller	0.074	0.026

SOURCE: FEDERAL TRANSIT ADMINISTRATION, TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT GUIDELINES, SEPTEMBER 2018.

Response c): No Impact. The project site is not located within the vicinity of 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. The project site is approximately 3.7 miles from the nearest airport, Bonanza Hills Airport. The project site is not located within the vicinity of a private airstrip. The proposed project would, therefore, not expose people residing or working in the project area to excessive noise levels associated with such airport facilities. Implementation of the proposed project would have **no impact** relative to this topic.

XIV. POPULATION AND HOUSING

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

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. The project does not propose any housing that would result in direct population growth. The proposed project will not result in intensification of land uses, or the addition of structures or uses that would house persons. No substantial population increases would result from implementation of the proposed project. Therefore, implementation of the proposed project would have a **less than significant** impact relative to this topic.

Response b): No Impact. The project site is located within Merced County and does not contain any housing. The proposed project would not displace housing or people. Implementation of the proposed project would have **no impact** relative to this topic.

XV. PUBLIC SERVICES

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

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. The Merced County Fire Department (MCFD) provides fire protection services to citizens of unincorporated Merced County, including the project site. The MCFD is a full-service fire department providing emergency services to all unincorporated areas of the county through a network of fire stations, personnel, and equipment. This network is comprised of twenty stations and a fleet of approximately eighty vehicles. The MCFD also provides fire protection to the cities of Gustine, Dos Palos, and Livingston through agreements with these cities. The MCFD currently maintains 22 fire stations. The fire stations are staffed 24 hours a day by a full-time career Fire Captain or Fire Apparatus Engineers and emergency response is augmented with over 300 Paid Call Firefighters. The closest fire station to the project site is MCFD Station 65, located at 15974 SR 59 in Snelling, approximately 1.0 mile to the northeast of the project site.

Fire response time is a function of the time interval for receiving and processing an emergency call (911 dispatch/emergency communication center), the turnout time (responding fire company), and the travel time to the incident (responding fire company). In calculating fire response times, the time interval for the receiving and processing an emergency call and the fire company turnout is generally a fixed time interval as established by the National Fire Protection Association (NFPA). The time interval for travel time, however, is highly variable because it is dependent on travel distance to the incident and the speed at which the fire vehicle/apparatus can safely travel given the roadway infrastructure, weather conditions, number of turns/intersections, roadway congestion, and other factors. Urban and suburban areas will generally have different travel conditions, which will affect travel speeds. The roadway design speed can vary significantly on roadways and will affect the safe travel speed for emergency vehicles (i.e. freeways, arterials, collectors, and local roads will accommodate varying travel speeds).

The RAND Corporation conducted extensive studies of fire department response times and developed a formula for calculating travel time. ISO, working with several fire departments, recently conducted its own review of the formula and found the RAND work still valid as a predictive tool. The RAND formula is as follows:

$$T = 0.65 + (S)D$$

- T = time in minutes to the nearest 1/10 of a minute
- 0.65 = a vehicle-acceleration constant for the first 0.5 mile traveled
- S = a vehicle-speed constant validated for response distances ranging from 0.5 miles to 8.0 miles.
    - Average Speed Factor = 60 ÷ Average Speed
- D = distance traveled in miles

The following discussion summarizes the response time calculations for MCFD Station 65 to the Snelling Event Center Project Site. The MCFD route to the Project site would follow one route, as described below.

In order to reach the project site, the MCFD would exit the Station 65 driveway from SR 59 heading west, travel west and southwest on SR 59, travel south on Snelling Road, and travel east into the project site driveway. This route totals 1.55 miles. The expected travel time calculations using various travel speeds are as follows:

Travel speed of 45 mph: Expected Travel Time in Minutes = 0.65 + (1.33 × 1.55 Miles)

Expected Travel Time in Minutes = 2.71

Travel speed of 40 mph: Expected Travel Time in Minutes = 0.65 + (1.5 × 1.55 Miles)

Expected Travel Time in Minutes = 2.98

Travel speed of 30 mph: Expected Travel Time in Minutes = 0.65 + (1.71 × 1.55 Miles)

Expected Travel Time in Minutes = 3.31

As shown, the estimated response time for MCFD to reach the project site is approximately 2.71 to 3.31 minutes after turnout.

Goal PFS-7 of the *2030 Merced County General Plan* describes that the MCFD should provide adequate fire services to protect County residents and property from fire. Policy PFS-7-2 describes that the MCFD should strive to maintain fire department staffing levels and response times consistent with National Fire Protection Association Standards. Policy PFS-7.2 describes that the MCFD should strive to expand fire protection services in areas that are currently underserved or areas that experience growth in order to maintain adequate levels of service. Policy PFS-7.7 requires new development to pay its fair share of public facility fees for new fire station facilities, equipment, and staffing necessary to maintain the County's service standards in that area. Policy PFS-7.8 describes that the MCFD should locate new fire stations in areas that ensure minimum response times to service calls. The proposed project would comply with all requirements as provided within the *2030 Merced County General Plan* pertaining to fire protection.

The proposed project would result in an incremental increase in the demand for fire protection services. The project applicant would consult with the MCFD during final project design to assure appropriate fire safety measures are incorporated into the building design. The applicant will pay the appropriate fire impact fees. The addition of the proposed project buildings and associated facilities (i.e., gazebo and parking area) would not adversely affect fire department service ratios or response times, nor would any new fire protection facilities need to be constructed. The

proposed project would comply with all applicable goals and policies as provided within the *2030 Merced County General Plan*. This is a **less than significant** impact.

Response b): Less than Significant. The Merced County Sheriff's Department serves unincorporated Merced County. Police protection services are provided to the project site by the Merced County Sheriff's Department Main Station located at 700 W. 22nd Street in Merced, located approximately 14 miles to the south of the project site. In all, the Merced County Sheriff's Department currently maintains one main station/main jail facility, two sub-stations, one coroner's facility, and one correctional facility. The Merced County Sheriff's Department maintains a Command Staff of one sheriff, one undersheriff, two captains, and four lieutenants.

Goal PFS-6 of the *2030 Merced County General Plan* describes that the provision of timely and adequate law enforcement through proper management and staffing of the Sheriff's Department in Merced County should occur. Policy PFS-6.1 describes that optimum staffing levels for both sworn Sheriff Deputies and civilian support staff should be encouraged. Policy PFS-6.2 describes that the Sheriff's Department should strive to achieve and maintain appropriate Sheriff Department response times for all call priority levels to provide adequate law enforcement services for all County residents. Additionally, Policy PFS-6.4 requires new development to pay its fair share of the costs for providing law enforcement service facilities and equipment to new residents. The proposed project would comply with all requirements as provided within the *2030 Merced County General Plan* pertaining to police protection.

The proposed project would result in an incremental increase in the demand for police protection services. The applicant will pay the appropriate police impact fees. The addition of the proposed project use would not adversely affect police department service ratios or response times, nor would any new police facilities need to be constructed. There is a **less than significant** impact relative to this topic.

Response c): Less than Significant. The project site is located within the Snelling-Merced Falls Union Elementary School District and Merced Union High School District. The proposed project does not include any residential units, or any other type of use that would directly, or indirectly increase the student population in the area. The proposed project will not result in intensification of land use, or the addition of structures or uses that would generate students. Therefore, the proposed project would not result in the need for new school facilities, and this impact would be **less than significant**.

Response d): Less than Significant. The Merced County Parks & Recreation Division is responsible for managing and maintaining the parks with Merced County. Regional Parks within Merced County include Hagaman Park, Lake Yosemite, and Henderson Park. Community parks within Merced County include Ballico Park, Courthouse Park, Cressey Park, Hilmar Park, Houlihan Park, LeGrand Park, O'Banion Park, Snelling Courthouse Park, South Dos Palos Park, and Winton Park. Rules and regulations for Merced County parks are enforced by the Merced County Sheriff Department.

The proposed project does not include any residential units or any other type of use that would directly or indirectly increase the population, or park demand in the area, or include any other type of use that would directly increase the park needs. The proposed project will not result in intensification of land use, or the addition of structures or uses that would use parks. Therefore, the proposed project would not have the potential to require construction of additional park and recreational facilities which may cause substantial adverse physical environmental impacts. There is a **less than significant** impact relative to this topic.

Response e): Less than Significant. The proposed project includes a gazebo, parking lot, and event facilities. The development of this type of use would not increase demand on community facilities; instead, the event area would be available for events such as weddings, fundraisers, receptions, reunions, festivals, and farm-to-table classes. The project would not significantly impact library services or require the construction of new or remodeled facilities. It is not expected that the proposed project would significantly impact any other public facilities. There is a **less than significant** impact relative to this topic.

XVI. RECREATION

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

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. Impacts associated with recreation are largely discussed under Section XIV, Public Services.

The proposed project does not include any residential units or any other type of use that would directly or indirectly increase the population, or park demand in the area, or include any other type of use that would directly increase the park needs. The proposed project will not result in intensification of land use, or the addition of structures or uses that would use parks. Therefore, the proposed project would not have the potential to require construction of additional park and recreational facilities which may cause substantial adverse physical environmental impacts. Therefore, the proposed project would result in a **less than significant** impact associated with recreational facilities.

XVII. TRANSPORTATION

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

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. The proposed project would not conflict with a program plan, ordinance or policy addressing the circulation system. There are no current or anticipated transit, roadway, bicycle or pedestrian facilities on the property where the project is proposed (Regional Transportation Plan). Walking paths would connect the proposed event buildings to the parking lot. Walking paths would be a pervious surface such as gravel, decomposed granite, or dirt. In light of these factors, the project's impact to transit, roadway, bicycle, and pedestrian facilities would be **less than significant**.

Response b): Less than Significant. The amended CEQA Guidelines state that "generally, Vehicle Miles Traveled (VMT) is the most appropriate measure of transportation impacts" and the provisions requiring the use of VMT shall apply statewide as of July 1, 2020. To aid lead agencies with SB 743 implementation, OPR produced the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018). The *Technical Advisory* helps lead agencies think about the variety of implementation questions they face with respect to shifting to a VMT metric. However, the guidance is not a prescriptive recipe for SB 743 implementation; lead agencies must still make their own specific decisions about methodology, thresholds, and mitigation.

The following two legislative intent statements are contained in the SB 743 statute:

- Ensure that the environmental impacts of traffic, such as noise, air pollution, and safety concerns, continue to be properly addressed and mitigated through the CEQA.
- More appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas [GHG] emissions.

These statements are important because they provide direction to OPR and to lead agencies. For OPR, the direction is largely about what the new metrics should achieve. For lead agencies, the direction is about expected changes in transportation analysis and what factors to consider for significance thresholds.

As of October 2021, Merced County has not yet formally adopted significance criteria for VMT; therefore, guidance contained in the *Technical Advisory* regarding land use projects that are

presumed to be less-than-significant was used to evaluate the potential VMT impacts of the proposed event center.

Consistent with the Office of Planning and Research (OPR) *Technical Advisory*, the proposed Snelling Road event center would most likely generate less than 110 vehicle trips per day based on the following parameters:

- Up to 48 events per year;
- Events would primarily take place on weekends between 10:00 AM and 10:00 PM; and
- A total of 121 automobile parking spaces and four (4) gravel handicap spaces.

Over the course of a year (365 days), the proposed project would generate a total of 6,000 (48×125 parking spaces) vehicles trips, or an average of 17 vehicles per day (6000÷365). Therefore, based on OPR's *Technical Advisory*, the proposed Snelling Road event center may be assumed to cause a **less-than-significant** transportation impact.

Responses c-d): **Less than Significant.** All emergency vehicles arriving to and from the proposed project would be able to enter via Snelling Road. No site circulation or access issues have been identified that would cause a traffic safety problem/hazard or any unusual traffic congestion or delay that could impede emergency vehicles or emergency access. The project does not include any design features or incompatible uses that pose a significant safety risk. The project would create no adverse impacts to emergency vehicle access or circulation.

There are no safety, capacity, or sight distance issues identified with the project site plan. Therefore, impacts associated with design features and emergency access would be considered **less than significant**.

XVIII. TRIBAL CULTURAL RESOURCES

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

BACKGROUND

AB 52 requires a lead agency, prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation.

Merced County has not received letters requesting consultation from any tribes or tribal organizations.

Ethnography

The project site lies within the eastern portion of the ethnographic territory of the Yokuts people. The Yokuts were members of the Penutian language family, which held all of the Central Valley, San Francisco Bay Area, and the Pacific Coast from Marin County to near Point Sur. The Yokuts differed from other ethnographic groups in California as they had true tribal divisions with group names. Each tribe spoke a particular dialect, common to its members, but similar enough to other Yokuts that they were mutually intelligible.

The Yokuts held portions of the San Joaquin Valley from the Tehachapis in the south to Stockton in the north. On the north, they were bordered by the Plains Miwok, and on the west by the Saclan or Bay Miwok and Costonoan peoples. Although neighbors were often from distinct language families, differences between the people appear to have been more influenced by environmental factors as opposed to linguistic affinities. Thus, the Plains Miwok were more similar to the nearby Yokuts than to foothill members of their own language group. Similarities in cultural inventory co-varied with distance from other groups and proximity to culturally diverse people. The

material culture of the southern San Joaquin Yokuts was therefore more closely related to that of their non-Yokuts neighbors than to that of Delta members of their own language group.

Trade was well developed, with mutually beneficial interchange of needed or desired goods. Obsidian, rare in the San Joaquin Valley, was obtained by trade with Paiute and Shoshoni groups on the eastern side of the Sierra Nevada, where numerous sources of this material are located, and to some extent from the Napa Valley to the north. Shell beads, obtained by the Yokuts from coastal people, and acorns, rare in the Great Basin, were among many items exported to the east by Yokuts traders.

Economic subsistence was based on the acorn, with substantial dependency on gathering and processing of wild seeds and other vegetable foods. The rivers, streams, and sloughs that formed a maze within the valley provided abundant food resources such as fish, shellfish, and turtles. Game, wild fowl, and small mammals were trapped and hunted to provide protein augmentation of the diet. In general, the eastern portion of the San Joaquin Valley provided a lush environment of varied food resources, with the estimated large population centers reflecting this abundance.

Settlements were oriented along the water ways, with their village sites normally placed adjacent to these features for their nearby water and food resources. House structures varied in size and shape, with most constructed from the readily available tules found in the extensive marshes of the low-lying valley areas. The housepit depressions for the structures ranged in diameter from 3 meters to 18 meters.

RESPONSES TO CHECKLIST QUESTIONS

Responses a-b): Less than Significant with Mitigation. The 2030 Merced County General Plan does not identify the site as having prehistoric period cultural resources. Additionally, there are no known unique cultural resources known to occur on, or within the immediate vicinity of, the project site. No instances of cultural resources or human remains have been unearthed on the project site. Based on the above information, the project site has a low potential for the discovery of prehistoric, ethnohistoric, or historic archaeological sites that may meet the definition of Tribal Cultural Resources.

Although no Tribal Cultural Resources have been documented in the project site, the proposed project is located in a region where cultural resources have been recorded and there remains a potential that undocumented archaeological resources that may meet the Tribal Cultural Resource definition could be unearthed or otherwise discovered during ground-disturbing and construction activities. Examples of significant archaeological discoveries that may meet the Tribal Cultural Resources definition would include villages and cemeteries.

Due to the possible presence of undocumented Tribal Cultural Resources within the project site, construction-related impacts on tribal cultural resources could be potentially significant. Implementation of the following mitigation measure would require appropriate steps to preserve and/or document any previously undiscovered resources that may be encountered during construction activities, including human remains. Implementation of this measure would reduce this impact to a **less than significant** level.

Mitigation Measure

*Implement **Mitigation Measure CLT-1** (reproduced below):*

Mitigation Measure CLT-1: *If any archaeological resources, paleontological resources, or human remains are discovered during project construction, construction shall be halted within 50 feet of the discovery and the following measures shall be implemented:*

- *If any prehistoric or historic artifacts, or other indications of archaeological resources are found during grading and construction activities, an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, shall be consulted to evaluate the finds and recommend appropriate mitigation measures.*
- *If cultural resources or Native American resources are identified, every effort shall be made to avoid significant cultural resources, with in-place preservation an important goal.*
- *Following the applicable 30-day period, the County will review any preservation and mitigation measures recommended by the consulting archaeologist and California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project, and shall provide direction regarding the preservation and/or mitigation that shall occur. If significant sites cannot feasibly be avoided, appropriate mitigation measures, such as data recovery excavations or photographic documentation of buildings, shall be undertaken consistent with applicable state and federal regulations. This requirement shall be included on any grading or building permits issued for the proposed project.*
- *If human remains are discovered, all work shall be halted immediately within 50 meters (165 feet) of the discovery, the County Coroner must be notified, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.*
- *If any fossils are encountered, there shall be no further disturbance of the area surrounding this find until the materials have been evaluated by a qualified paleontologist, and appropriate treatment measures have been identified.*

XIX. UTILITIES AND SERVICE SYSTEMS

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

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less Than Significant. The proposed project would introduce a 736-sf catering and storage building, 736-sf restroom and changing room building, 218-sf gazebo, and parking area onto the site. Electricity service would be provided by Pacific Gas & Electric. An existing propane tank would be utilized for the new residential structure. The existing water well system would serve the proposed event facilities, including the catering building and restroom building. Project implementation would not result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities.

The environmental effects of the construction of the facilities required to serve the project are disclosed throughout this Initial Study. As discussed, all proposed project impacts were determined to be negligible, less than significant, or less than significant with mitigation. Therefore, a **less than significant** impact would result.

Response b): Less than Significant. The existing water well system would serve the proposed event facilities, including the catering building and restroom building. New water infrastructure would not be required. However, water demand resulting from the proposed project would increase compared to the existing condition as a result of the proposed catering building and restroom building use.

The project site is designated Agricultural by the 2030 Merced County General Plan. The proposed use would not exceed the water demand assumed for the project site, which is agricultural. A **less than significant** impact on water supplies would result.

Response c): Less than Significant. A new septic system would be provided to serve the restroom building. The septic system would be constructed similar to the existing septic system that serves the mobile home. This includes a dedicated leach field, septic tank, and mound system with electric pump. Additionally, a grease trap would be provided by the catering and storage building. The existing septic tank and seepage tank located near the existing mobile home would remain as part of the project to serve the new residence once the mobile home is removed.

If not designed correctly, septic systems could result in health impacts, adversely affect natural habitat, and pollute groundwater. Mitigation Measure GEO-3 requires that a Septic Feasibility Study be completed and submitted to the County. Mitigation Measure GEO-4 requires that the septic system and leach field would be reviewed and constructed to comply with all applicable requirements of the Merced County Public Health Department, Environmental Health Division, which provides standards for the site evaluation, design, inspections, and permitting of sewage disposal systems, as well as County regulations addressing septic systems included in Chapter 9.54 of the County Code (Regulation of On-Site Wastewater Treatment Systems). With these mitigation measures required previously, a **less than significant** impact on wastewater treatment and capacity would result.

Responses d-e): Less than Significant. The amount of solid waste generated by the proposed project would not exceed any State or local standards, nor would it be in excess of the capacity of local infrastructure. In addition, the proposed project would not otherwise impair the attainment of solid waste reduction goals. Further, the proposed project would comply with federal, state and local management and reduction statutes related to solid waste during construction activities as well as during operation of the proposed project, resulting in no impact on waste disposal requirements. Overall, this is a **less than significant** impact.

XX. WILDFIRE

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

EXISTING SETTING

The southern portion of the project site containing and south of the Merced River is within a SRA, Moderate FHSZ. The portion of the project site where proposed development would occur is not within an SRA. The community of Snelling and the project site are not categorized as a "Very High" FHSZ by CalFire. Because a portion of the project site along and south of the Merced River is within an SRA, these checklist questions are analyzed below.

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. The project site will continue to be accessed via Snelling Road. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts from project implementation would be considered **less than significant** relative to this topic.

Response b): Less than Significant. The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The project site is located in an area that is predominately agricultural and former mining uses, which is not considered at a significant risk of wildlife. The project would not exacerbate wildfire risk. Therefore, impacts from project implementation would be considered **less than significant** relative to this topic.

Response c): Less than Significant. The project includes development of infrastructure (water, wastewater, and storm drainage) required to support the proposed event center use. The project would not require the installation or maintenance of infrastructure that may exacerbate fire risk. Therefore, impacts from project implementation would be considered **less than significant** relative to this topic.

Response d): Less than Significant. The proposed project would require the installation of a drainage ditch system to ensure that storm waters properly drain from the project site and does not result in downstream flooding or major drainage changes. The parking area will remain as an unpaved and pervious surface so there is not a need for any significant storm drainage design. The small amount of drainage that would result from the additional buildings would be controlled by a small drainage ditch system that would be submitted with the building plans. It is not anticipated that any new storm drainage is warranted for the existing access roads or unpaved parking area given they will remain pervious. A full basin or outfall is not necessary for the small amount of impervious surface added to the site.

Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e. cut and fill). The proposed development area is relatively flat; therefore, the potential for a landslide in the project site is low.

Overall, impacts from project implementation would be considered **less than significant** relative to this topic.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

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

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. This Initial Study includes an analysis of the project impacts associated with aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, wildfire, and utilities and service systems. The analysis covers a broad spectrum of topics relative to the potential for the proposed project to have environmental impacts. This includes the potential for the proposed project to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. It was found that the proposed project would have either no impact, a less than significant impact, or a less than significant impact with the implementation of mitigation measures. For the reasons presented throughout this Initial Study, the proposed project would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. With the implementation of mitigation measures presented in this Initial Study, the proposed project would have a **less than significant** impact relative to this topic.

Response b): Less than Significant. This Initial Study includes an analysis of the project impacts associated with aesthetics, agricultural and forest resources, air quality, biological resources,

cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, wildfire, and utilities and service systems. The analysis covers a broad spectrum of topics relative to the potential for the proposed project to have environmental impacts. It was found that the proposed project would have either no impact, a less than significant impact, or a less than significant impact with the implementation of mitigation measures. These mitigation measures would also function to reduce the project's contribution to cumulative impacts.

The project would increase the population and use of public services and utility systems; however, it was found that there is adequate capacity to accommodate the project.

There are no significant cumulative or cumulatively considerable effects that are identified associated with the proposed project after the implementation of all mitigation measures presented in this Initial Study. With the implementation of all mitigation measures presented in this Initial Study, the proposed project would have a **less than significant** impact relative to this topic.

Response c): Less than Significant. The construction phase could affect surrounding neighbors through increased air emissions, noise, and traffic; however, the construction effects are temporary and are not substantial. The operational phase could also affect surrounding neighbors through increased air emissions, noise, and traffic; however, mitigation measures have been incorporated into the proposed project that would reduce the impacts to a less than significant level. The proposed project would not cause substantial adverse effects on human beings. Implementation of the proposed project would have a **less than significant** impact relative to this topic.

REFERENCES

California Air Resources Board. EMFAC2017 (v1.0.7) Emissions Inventory, Stanislaus County, 2021. Available at: <https://www.arb.ca.gov/emfac/2017/>.

California Air Pollution Control Officers Association. California Emissions Estimator Model User's Guide, Version 2016.3.2.

California Air Pollution Control Officers Association. Quantifying Greenhouse Gas Mitigation Measures. August 2010.

California Department of Conservation. California Important Farmland Finder. 2021. Available at: <https://maps.conservation.ca.gov/dlrp/ciff/>.

California Department of Fish and Game. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. 2009.

California Department of Fish and Wildlife. "Special Animals List." Natural Diversity Database. 2021.

California Department of Fish and Wildlife. "State and Federally Listed Endangered, Threatened, and Rare Plants of California." 2021.

California Department of Fish and Wildlife. "State and Federally Listed Endangered, Threatened, and Rare Animals of California." 2021.

California Department of Fish and Wildlife. California Natural Diversity Database (CNDDB). 2021.

California Department of Resources Recycled and Recovery. Estimated Solid Waste Generation Rates. 2019. Available at: <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>.

California Energy Commission. Global Climate Change: In Support of the 2005 Integrated Energy Policy Report (CEC-600-2005-007). 2005. Available at: <http://www.energy.ca.gov/2005publications/CEC-100-2005-007/CEC-100-2005-007-CMF.PDF>.

California Energy Commission. Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004 (CEC-600-2006-013-SF). 2006. Available at: <http://www.energy.ca.gov/2006publications/CEC-600-2006-013/CEC-600-2006-013-SF.PDF>.

County of Merced. 2030 Merced County General Plan. November 2012.

County of Merced. 2030 Merced County General Plan Update – Draft Program Environmental Impact Report. November 2012.

County of Merced. Merced County Airport Land Use Compatibility Plan. June 2012.

County of Merced. Merced County Code. Current through Ordinance 2003 and the June 2021 code supplement.

Intergovernmental Panel on Climate Change. 2007. Climate Change 2007: The Physical Science Basis, Summary for Policy Makers. Available at: <http://fire.pppl.gov/ipcc_summary_020207.pdf>.

MDAcoustics. Snelling Road Event Center – Noise Review – Merced County, CA. September 28, 2021.

Peak & Associates, Inc. Cultural Resource Assessment for the Snelling Road Event Center Project, Snelling, Merced County, California. March 2021.

San Joaquin County Air Pollution Control District. Guidance for Assessing and Mitigating Air Quality Impacts. February 19, 2015.

Skinner, Mark W. and Bruce M. Pavlik, Eds. California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California. 2001.

Appendix A

USFWS Species List

United States Department of the Interior

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

In Reply Refer To: June 01, 2022
Project Code: 2022-0049190
Project Name: Merced County - Snelling Road Event Center

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

To Whom It May Concern:

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

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

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

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

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

Project Summary

Project Code: 2022-0049190
Event Code: None
Project Name: Merced County - Snelling Road Event Center
Project Type: Commercial Development
Project Description: The project would include development and operation of an outdoor event and recreation area on the project site. The event and recreation area would require development of a catering and storage building, restroom and changing room building, and gazebo.
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.506693850000005,-120.4504199543054,14z

Counties: Merced County, California

Endangered Species Act Species

There is a total of 10 threatened, endangered, or candidate species on this species list.

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

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

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

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

Mammals

NAME	STATUS
San Joaquin Kit Fox *Vulpes macrotis mutica*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/2873

Amphibians

NAME	STATUS
California Tiger Salamander *Ambystoma californiense*	Threatened

Population: U.S.A. (Central CA DPS)
There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/2076

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus*	Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/321

Insects

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

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp *Branchinecta conservatio* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Fleshy Owl's-clover *Castilleja campestris ssp. succulenta* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8095	Threatened
Hartweg's Golden Sunburst *Pseudobahia bahiifolia* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1704	Endangered

Critical habitats

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

IPaC User Contact Information

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Name: Steve McMurtry
Address: 1020 Suncast Lane, Suite 106
City: El Dorado Hills
State: CA
Zip: 95762
Email smcmurtry@denovoplanning.com
Phone: 9165809818

Appendix B

Cultural Resource Assessment

CUTURAL RESOURCE ASSESSMENT FOR THE SNELLING ROAD EVENT CENTER PROJECT, SNELLING, MERCED COUNTY, CALIFORNIA

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INTRODUCTION

Purpose of the Initial Study

An Initial Study (IS) is a preliminary analysis which is prepared to determine the relative environmental impacts associated with a proposed project. It is designed as a measuring mechanism to determine if a project will have a significant adverse effect on the environment, thereby triggering the need to prepare an Environmental Impact Report (EIR). It also functions as an evidentiary document containing information which supports conclusions that the project will not have a significant environmental impact or that the impacts can be mitigated to a "Less Than Significant" or "No Impact" level. If there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, the lead agency shall prepare a Negative Declaration (ND). If the IS identifies potentially significant effects, but: (1) revisions in the project plans or proposals would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and (2) there is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment, then a Mitigated Negative Declaration (MND) shall be prepared.

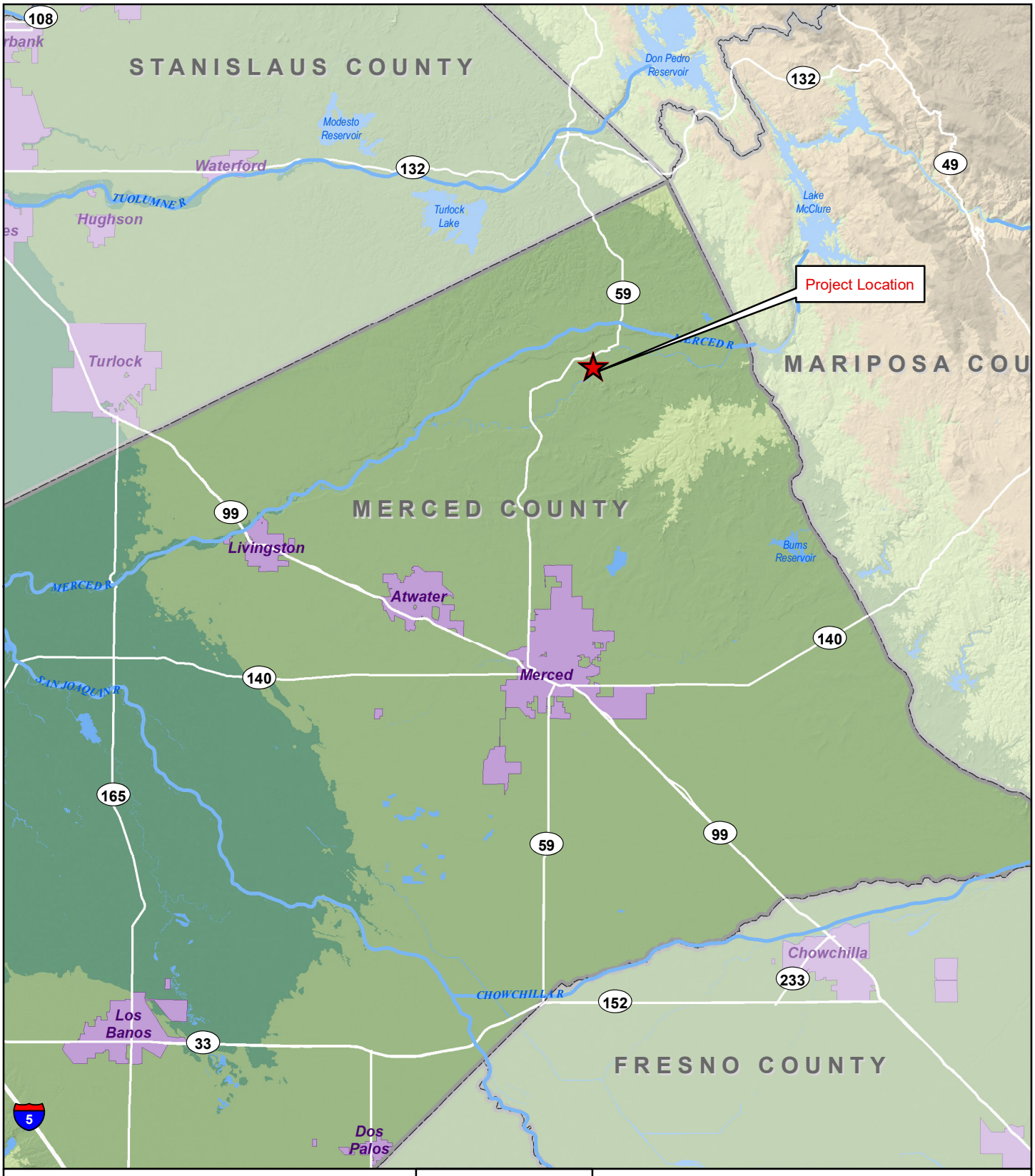
This Initial Study has been prepared consistent with California Environmental Quality Act (CEQA) Guidelines Section 15063, to determine if the proposed Snelling Road Event Center project may have a significant effect upon the environment. Based upon the findings and mitigation measures contained within this report, a MND will be prepared.

Project Description

Project Location and Setting

Project Location

The project site (Assessor Parcel Number [APN] 043-080-002) is located at 15080 N. Snelling Road within the unincorporated portion of Merced County near the community of Snelling (Figure 1 and 2). Snelling is located along State Route (SR) 59, and is approximately 21 miles east of Turlock and 13 miles north of Merced. The project site encompasses approximately 22 acres located along the Merced River, adjacent east of Snelling Road, and approximately 0.54 miles south of SR 59.



LEGEND

- Project Location
- Incorporated Area
- County Boundary

Sources: California State Geoportal
Map date: October 26, 2020.

N

0 2½ 5
Miles

SNELLING ROAD EVENT CENTER
MERCED COUNTY, CALIFORNIA

Figure 1. Regional Location Map

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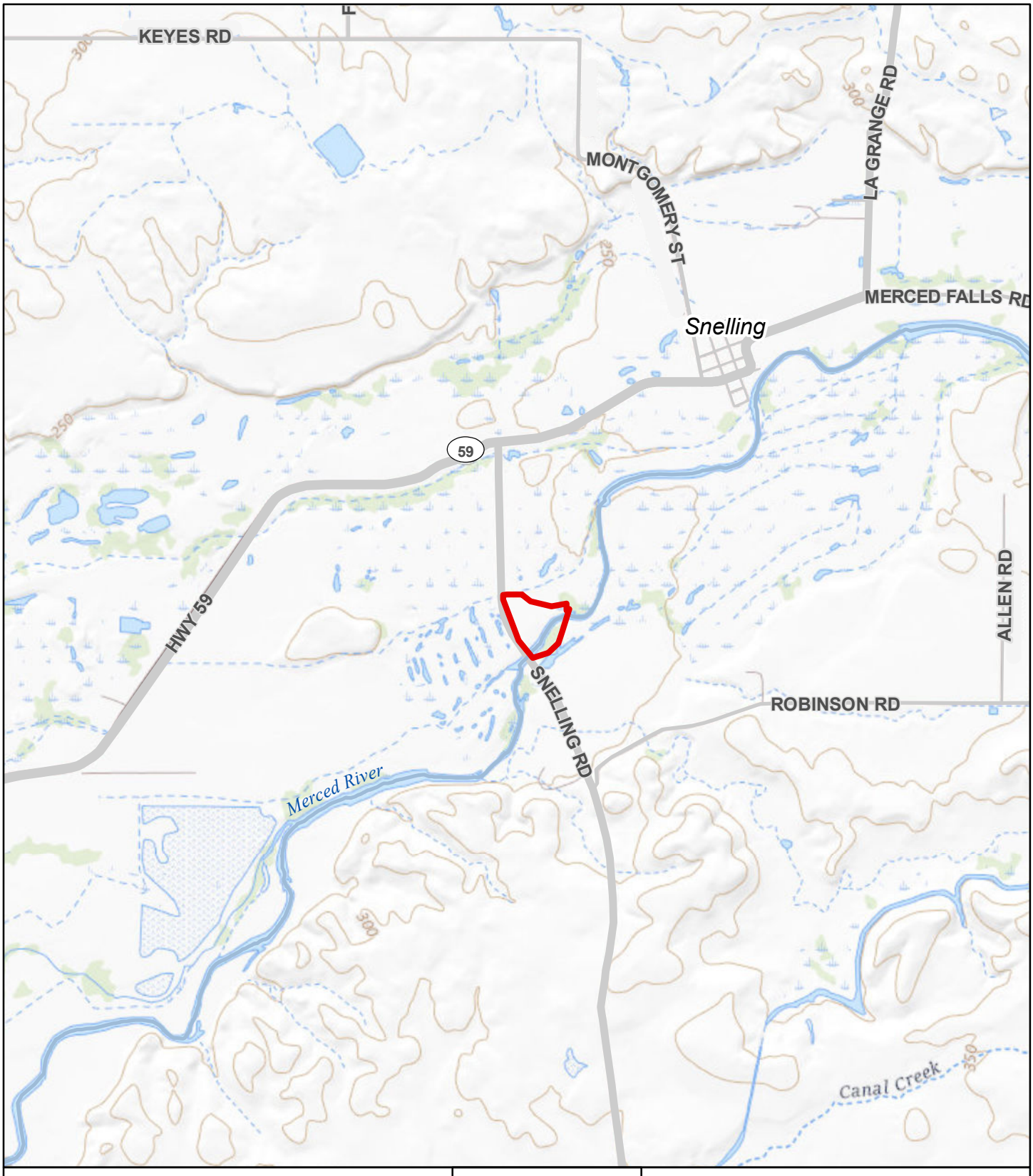

LEGEND

Project Boundary (APN 043-080-002)

0 1,000 2,000
Feet

Sources: Merced County GIS; ArcGIS Online USGS National Map Service. Map date: January 17, 2021.

SNELLING ROAD EVENT CENTER
MERCED COUNTY, CALIFORNIA

Figure 2. Vicinity Map

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Site Conditions

The project site was formerly used for dredge mining operations, and has remnant gravel/rock tailing piles from the dredging activities. The project site currently contains a mobile home that is served by a water well system and an elevated/bermed septic tank and seepage tank. The project site has several ancillary facilities including a shop building, kennel for two dogs, and a gasoline tank. These developed areas are accessed by an existing gravel driveway and gravel roadway off Snelling Road.

The property has been used seasonally for Halloween festivities, including up to 400 people per day during the fall season. Parking for these festivities has occurred in a flat grassy area that is mowed prior to vehicular parking use by the seasonal visitors. The property has also been used for several private weddings, with wedding activities being held in the same location as the Halloween festivities.

The remainder of the site is undeveloped and contains ruderal grasses, scattered trees, and the Merced River (Figure 3). The terrain is predominantly flat with slopes increasing to the northwest and decreasing to the southeast. The project site's elevation ranges between 252 to 241 feet above mean sea level (MSL).

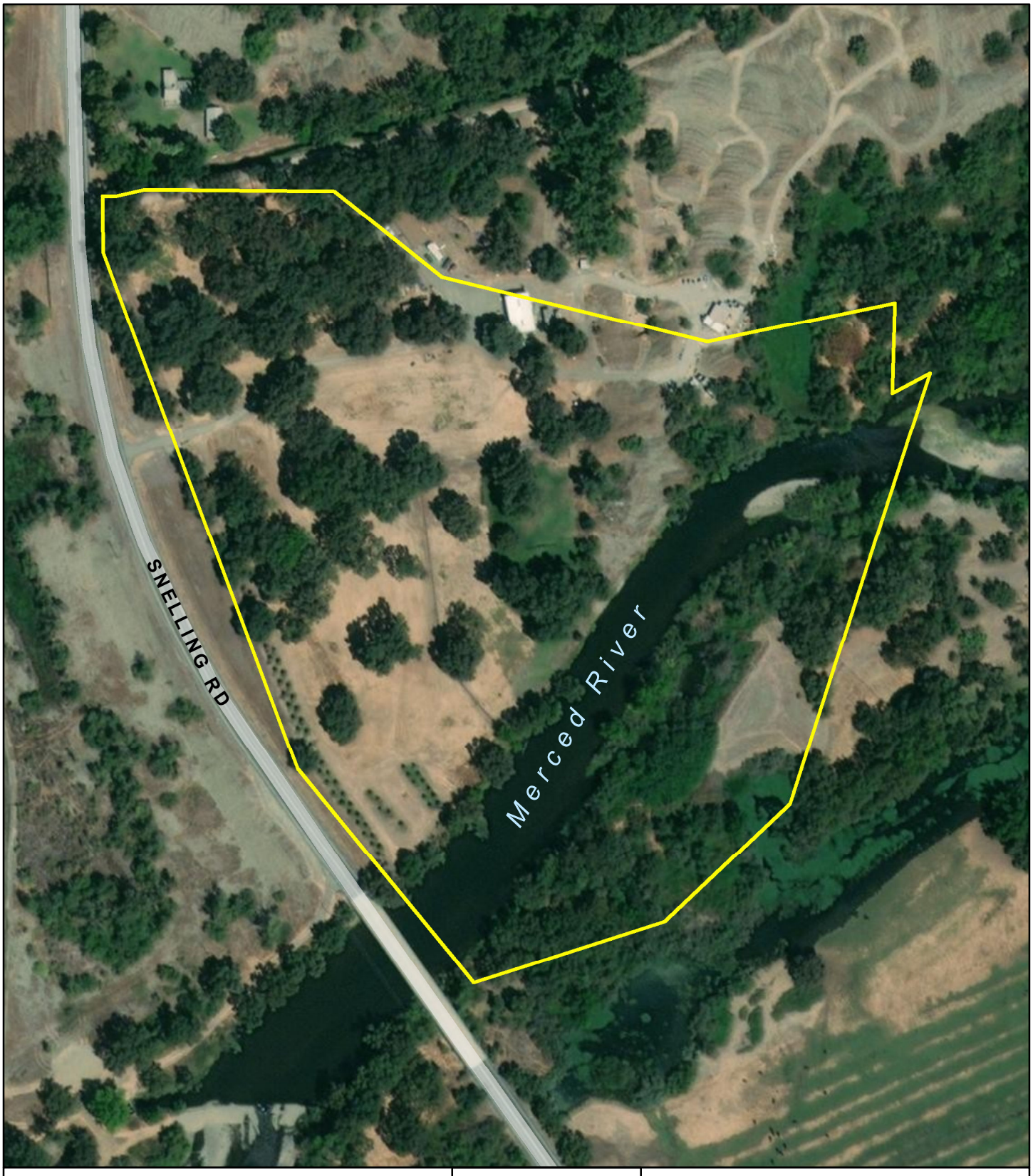
Surrounding Land Uses

The project site is surrounded primarily by existing open space areas, agricultural uses, and rural residential land uses. The nearest residence is located approximately 0.36 miles south of the southern site boundary. Downtown Snelling is located approximately 0.95 miles northeast of the site.

Project Summary

The proposed project would include development and operation of an outdoor event and recreation area on the project site. The event and recreation area would require development of a catering and storage building, restroom and changing room building, and gazebo (Figure 4).

The project anticipates using the existing parking area for event parking. This parking area will remain earthen and vegetated (grass), but is anticipated to be graded initially to ensure it is level. There is a possibility that the parking area would be graveled to create an all-weather surface. If left as vegetated, the applicant will mow the parking area prior to events, if graveled there is very little maintenance anticipated other than adding some additional gravel and leveling every five to ten years.



Legend

Project Boundary (APN 043-080-002)

N

0 100 200

Feet

SNELLING ROAD EVENT CENTER
MERCED COUNTY, CALIFORNIA

Figure 3. Aerial View

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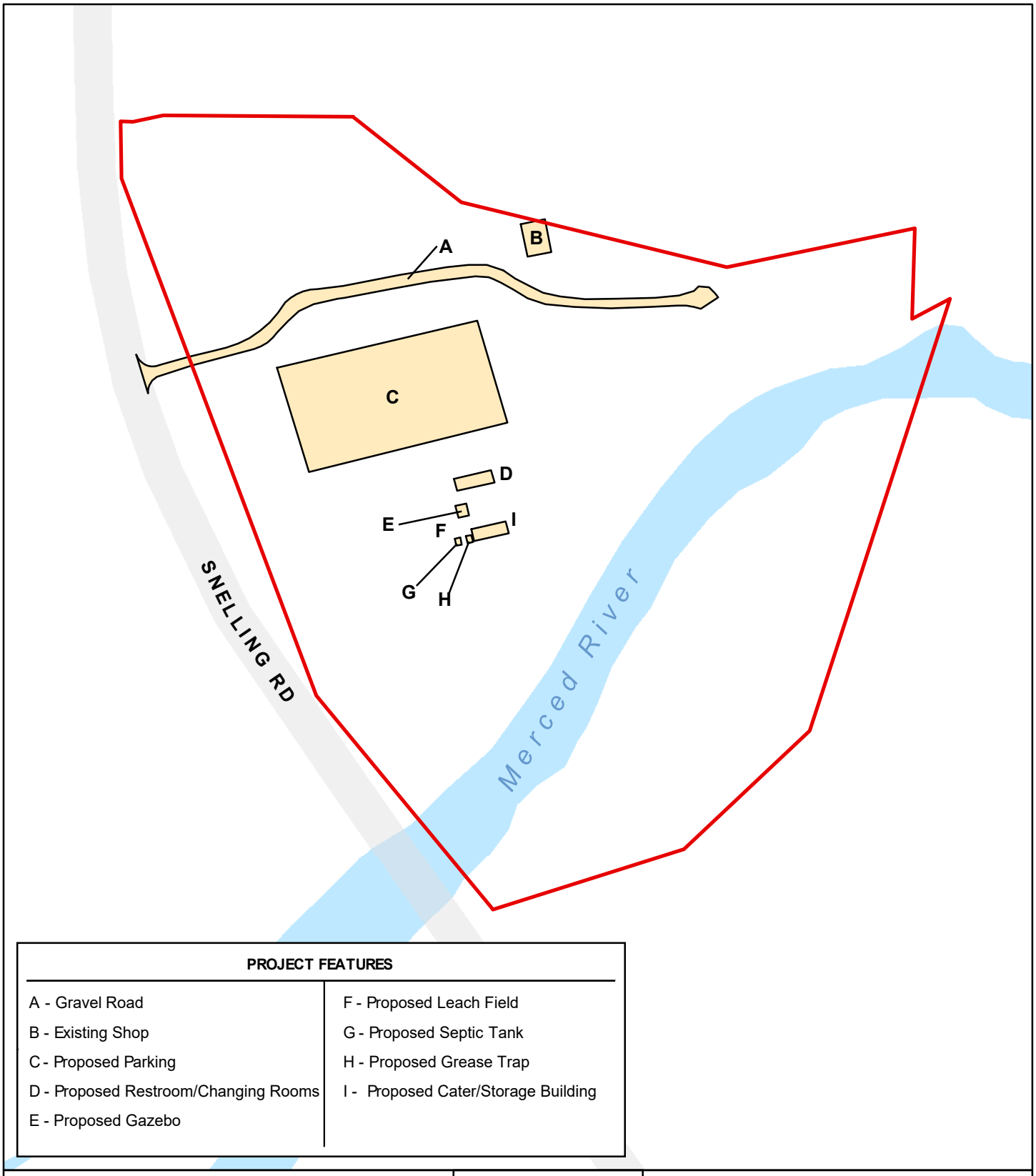

PROJECT FEATURES	
A - Gravel Road	F - Proposed Leach Field
B - Existing Shop	G - Proposed Septic Tank
C - Proposed Parking	H - Proposed Grease Trap
D - Proposed Restroom/Changing Rooms	I - Proposed Cater/Storage Building
E - Proposed Gazebo	

LEGEND

Project Boundary (APN 043-080-002)

Project Feature

Sources: Merced County GIS; ArcGIS Online World Imagery Map Service. Map date: January 20, 2021.

N

0 100 200

Feet

SNELLING ROAD EVENT CENTER
MERCED COUNTY, CALIFORNIA

Figure 4. Site Plan

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The project would also include some basic landscaping associated with the event area (including ornamental landscaping, flower beds/pots, and a garden), however, it is noted that landscaping will be minimal and focus on the natural environment that is present (i.e., oak trees, grasses, river).

Irrigation and electrical utilities are in place from the current landscaping in the event area. A septic system will be added to serve the event restroom. The septic will be similar to the existing septic system that serves the existing mobile home.

Outdoor Event and Recreation Area

The proposed outdoor event and recreation area would be located south of the gravel driveway and north of the Merced River. Event facilities would include a 736-square-foot (sf) catering and storage building, 736-sf restroom and changing room building, and 218-sf gazebo. Landscaping (including ornamental landscaping, flower beds, and a garden), fencing, and gravel and paved patio areas would also be provided in the event area.

The event area would be available for events such as weddings, fundraisers, receptions, reunions, festivals, and farm-to-table classes. Up to 48 events per year would occur on-site. The events would primarily take place on weekends between 10:00 AM and 10:00 PM. Amplified noise would be permitted; however, amplified noise would not be permitted after 10:00 PM. The maximum number of guests would be 300. Food and beverages would be provided by caterers or the guests, and no meals would be prepared on-site. Four to six employees would be required to assist with the events.

Site Access and Circulation

Access to the project site would be provided from the existing gravel access point off Snelling Road. The gravel driveway would have minor improvements to the surface (i.e., additional gravel, minor leveling), but would largely remain the same as the existing. These types of improvement are largely maintenance improvements commonly performed on driveways on rural properties, and would be anticipated to be performed periodically for the life of the project. It is noted that the property owner has periodically re-graveled and leveled the driveway for their current use as a rural residence.

An unpaved parking area containing 125 parking spaces, including 121 automobile parking spaces and four gravel handicap spaces, would be provided near the gravel access road. Walking paths would also connect the proposed event buildings to the parking lot. Walking paths would be a pervious surface such as gravel, decomposed granite, or dirt.

Utilities and Public Services

Utilities infrastructure would include the use of the existing onsite electric from PG&E, existing onsite propane tank to be refilled periodically as needed, a new elevated septic system for the event

restrooms, and small earthen ditches to control storm water. Existing public service providers would provide police and fire service to the project.

Water and Sewer

A new septic system would be provided to serve the restroom building. The septic system would be constructed similar to the existing septic system that serves the mobile home. This includes a dedicated leach field, septic tank, and mound system with electric pump. Additionally, a grease trap would be provided by the catering and storage building. The existing septic tank and seepage tank located near the existing mobile home would remain as part of the project to serve the new residence once the mobile home is removed.

Storm Drainage

There is a total of 1,690 square feet of new building area for the outdoor event and recreation area, which will add an insignificant amount of impervious surface to the property relative to the total pervious surfaces available. The parking area will remain as an unpaved and pervious surface so there is not a need for any significant storm drainage design. The small amount of drainage that would result from the additional buildings would be controlled by a small drainage ditch system that would be submitted with the building plans. It is not anticipated that any new storm drainage is warranted for the existing access roads or unpaved parking area given they will remain pervious. A full basin or outfall is not necessary for the small amount of impervious surface added to the site.

Other Utilities and Services

Electricity service would be provided by Pacific Gas & Electric. An existing propane tank would be utilized for the new residential structure. Fire services would be provided by the Merced County Fire Department. Police services would be provided by the Merced County Sheriff's Department.

General Plan and Zoning Designations

The project site is designated Agricultural by the 2030 Merced County General Plan. The Agricultural (A) land use designation provides for cultivated agricultural practices which rely on good soil quality, adequate water availability, and minimal slopes. This is the largest County land use designation by area in the County and is typically applied to areas on the valley floor. The minimum lot or parcel size for the Agricultural designation is 40 acres, the maximum number of dwelling units per gross acre is 0.025, and the maximum non-residential floor-area-ratio (FAR) is 0.10. The proposed project is generally consistent with the land use designation for the site; however, the project site is smaller than the minimum lot or parcel size of 40 acres.

The project site is zoned Exclusive Agriculture (A2) by the County. The purpose of the A2 zone is to provide for areas with considerably expanded agricultural enterprises, due mainly to the requirement of large parcels which are more economically suitable to support farming activities.

The 160-acre minimum parcel size facilitates farming and ranching operations and a variety of open space functions that are typically less dependent on soil quality and are often connected more with foothill and wetland locations; grazing and pasture land; and wildlife habitat and recreational areas. Recreational events and weddings are conditionally permitted within the A2 Zone. As such, the proposed project would require approval of a CUP to allow for the proposed outdoor events.

Requested Entitlements and Other Approvals

Merced County is the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of the CEQA, Section 15050. Implementation of the Snelling Road Event Center project requires approvals from Merced County, including but not limited to:

- Adoption of the MND;
- Adoption of the Mitigation Monitoring and Reporting Program (MMRP);
- Approval of the CUP;
- Approval of development permits.

It is not anticipated that additional regulatory agencies would be involved in issuing permits because the project does not include any significant development or grading activities.

The Project Area lies on the Parcel #043-080-002, at 15080 N. Snelling Road, Snelling, CA. The Project Area is located in portions of Sections 8 and 17, Township 5 South, Range 14 East, mapped on the Snelling 7.5' United States Geological Survey (USGS) topographic quadrangle (Figure 5).

Project Personnel

Melinda Peak (resumes, Appendix 1) served as principal investigator for the project, with Michael Lawson completing the field survey of the project area in October 2020.

The goal of the study is to determine whether cultural resources exist within the Project Area, and if present, if the resources are important cultural resources under the criteria of the California Register of Historical Resources for CEQA review.

REGULATORY CONTEXT

State historic preservation regulations affecting this project include the statutes and guidelines contained in the California Environmental Quality Act (CEQA; Public Resources Code sections 21083.2 and 21084.1 and sections 15064.5 and 15126.4 (b) of the CEQA Guidelines). CEQA Section 15064.5 requires that lead agencies determine whether projects may have a significant effect on the

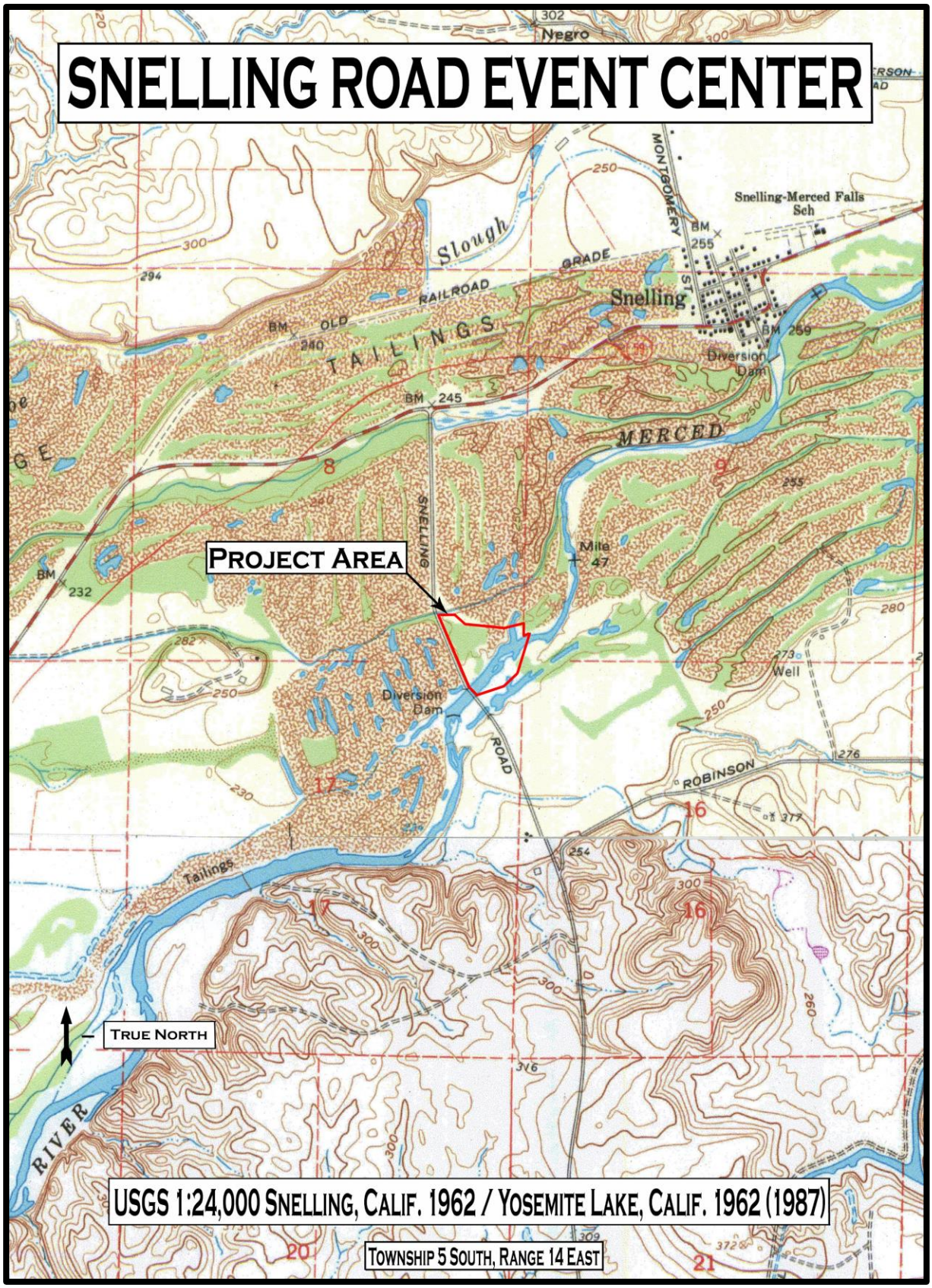

SNELLING ROAD EVENT CENTER
PROJECT AREA
TRUE NORTH
USGS 1:24,000 SNELLING, CALIF. 1962 / YOSEMITE LAKE, CALIF. 1962 (1987)
TOWNSHIP 5 SOUTH, RANGE 14 EAST
Negro
Slough
MONTGOMERY ST.
Snelling-Merced Falls Sch
BM 255
GRADE
RAILROAD
Snelling
OLD
TAILINGS
BM 240
BM 245
BM 259
Diversion Dam
MERCED
SNELLING
Mile 47
BM 232
Diversion Dam
ROAD
ROBINSON
Well
Tailings
RIVER

Figure 5

archaeological and historical resources. Public Resources Code Section 21098.1 further cites: A project 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.

An "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript that is historically or archaeologically significant (Public Resources Code section 5020.1).

Advice on procedures to identify such resources, evaluate their importance, and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR), CEQA and Archaeological Resources, 1994. The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including, but not limited to, museums, historical commissions, associations and societies be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of the antiquity and provides for the sensitive treatment and disposition of those remains (California Health and Safety Code Section 7050.5, California Public Resources Codes Sections 5097.94 et al).

The California Register of Historical Resources (Public Resources Code Section 5020 et seq.)

The State Historic Preservation Office (SHPO) maintains the California Register of Historical Resources (CRHR). Properties listed, or formally designated as eligible for listing, on the National

Register of Historic Places are automatically listed on the CRHR, as are State Landmarks and Points of Interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

For the purposes of CEQA, an historical resource is a resource listed in, or determined eligible for listing in the California Register of Historical Resources. When a project will impact a site, it needs to be determined whether the site is an historical resource. The criteria are set forth in Section 15064.5(a) (3) of the CEQA Guidelines, and are defined as any resource that does any of the following:

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

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

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

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
D. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, the CEQA Guidelines, Section 15064.5(a) (4) states:

The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code section 5020.1(j) or 5024.1.

California Health and Safety Code Sections 7050.5, 7051, and 7054

These sections collectively address the illegality of interference with human burial remains, as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction, and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures.

California Public Resources Code Section 15064.5(e)

This law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction. The section establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project and establishes the Native American Heritage Commission as the entity responsible to resolve disputes regarding the disposition of such remains.

Assembly Bill 52

Assembly Bill (AB) 52 establishes a formal consultation process for California tribes as part of CEQA and equates significant impacts on tribal cultural resources with significant environmental impacts. AB 52 defines a "California Native American Tribe" as a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission. AB 52 requires formal consultation with California Native American Tribes prior to determining the level of environmental document if a tribe has requested to be informed by the lead agency of proposed projects. AB 52 also requires that consultation address project alternatives, mitigation measures, for significant effects, if requested by the California Native American Tribe, and that consultation be considered concluded when either the parties agree to measures to mitigate or avoid a significant

effect, or the agency concludes that mutual agreement cannot be reached. Under AB 52, such measures shall be recommended for inclusion in the environmental document and adopted mitigation monitoring program if determined to avoid or lessen a significant impact on a tribal cultural resource.

CULTURAL HISTORY

Prehistory

The Central Valley region was among the first in the state to attract intensive fieldwork, and research has continued to the present day. This has resulted in a substantial accumulation of data.

In the early decades of the 1900s, E.J. Dawson explored numerous sites near Stockton and Lodi, later collaborating with W.E. Schenck (Schenck and Dawson 1929). By 1933, the focus of work was directed to the Cosumnes locality, where survey and excavation studies were conducted by the Sacramento Junior College (Lillard and Purves 1936). Excavation data, in particular from the stratified Windmiller site (CA-Sac-107), suggested two temporally distinct cultural traditions. Later work at other mounds by Sacramento Junior College and the University of California, Berkeley, enabled the investigators to identify a third cultural tradition, intermediate between the previously postulated Early and Late Horizons. The three-horizon sequence, based on discrete changes in ornamental artifacts and mortuary practices, as well as on observed differences in soils within sites (Lillard, Heizer and Fenenga 1939), was later refined by Beardsley (1954). An expanded definition of artifacts diagnostic of each time period was developed, and its application extended to parts of the central California coast. Traits held in common allow the application of this system within certain limits of time and space to other areas of prehistoric central California.

The Windmiller Culture (Early Horizon) is characterized by ventrally-extended burials (some dorsal extensions are known), with westerly orientation of heads; a high percentage of burials with grave goods; frequent presence of red ocher in graves; large projectile points, of which 60 percent are of materials other than obsidian; rectangular *Haliotis* beads; *Olivella* shell beads (types A1a and L); rare use of bone; some use of baked clay objects; and well-fashioned charm stones, usually perforated.

The Cosumnes Culture (Middle Horizon) displays considerable changes from the preceding cultural expression. The burial mode is predominately flexed, with variable cardinal orientation and some cremations present. There are a lower percentage of burials with grave goods, and ocher staining is common in graves. *Olivella* beads of types C1, F and G predominate, and there is abundant use of green *Haliotis sp.* rather than red *Haliotis sp.* Other characteristic artifacts include perforated and canid teeth; asymmetrical and "fishtail" charm stones, usually unperforated; cobble

mortars and evidence of wooden mortars; extensive use of bone for tools and ornaments; large projectile points, with considerable use of rock other than obsidian; and use of baked clay.

Hotchkiss Culture (Late Horizon) -- The burial pattern retains the use of the flexed mode, and there is wide spread evidence of cremation, lesser use of red ocher, heavy sue of baked clay, *Olivella* beads of Types E and M, extensive use of *Haliotis* ornaments of many elaborate shapes and forms, shaped mortars and cylindrical pestles, bird-bone tubes with elaborate geometric designs, clam shell disc beads, small projectile points indicative of the introduction of the bow and arrow, flanged tubular pipes of steatite and schist, and use of magnesite (Moratto 1984:181-183). The characteristics noted are not all-inclusive, but cover the more important traits.

Schulz (1981), in an extensive examination of the central California evidence for the use of acorns, used the terms Early, Middle and Late Complexes, but the traits attributed to them remain generally the same. While it is not altogether clear, Schulz seemingly uses the term "Complex" to refer to the particular archeological entities (above called "Horizons") as defined in this region. Ragir's (1972) cultures are the same as Schulz's complexes.

Bennyhoff and Hughes (1984) have presented alternative dating schemes for the Central California Archeological Sequence. The primary emphasis is a more elaborate division of the horizons to reflect what is seen as cultural/temporal changes within the three horizons and a compression of the temporal span.

There have been other chronologies proposed, including Fredrickson (1973), and since it is correlated with Bennyhoff's (1977) work, it does merit discussion. The particular archeological cultural entities Fredrickson has defined, based upon the work of Bennyhoff, are patterns, phases and aspects. Bennyhoff's (1977) work in the Plains Miwok area is the best definition of the Cosumnes District, which likely conforms to Fredrickson's pattern. Fredrickson also proposed periods of time associated heavily with economic modes, which provides a temporal term for comparing contemporary cultural entities. It corresponds with Willey and Phillips' (1958) earlier "tradition", although it is tied more specifically to the archeological record in California.

Ethnography

The Project Area lies within the eastern portion of the ethnographic territory of the Yokuts people. The Yokuts were members of the Penutian language family which held all of the Central Valley, San Francisco Bay Area, and the Pacific Coast from Marin County to near Point Sur. The Yokuts differed from other ethnographic groups in California as they had true tribal divisions with group names (Kroeber 1925; Latta 1949). Each tribe spoke a particular dialect, common to its members, but similar enough to other Yokuts that they were mutually intelligible (Kroeber 1925).

The Yokuts held portions of the San Joaquin Valley from the Tehachapis in the south to Stockton in the north. On the north they were bordered by the Plains Miwok, and on the west by the Saclan or Bay Miwok and Ohlone peoples. Although neighbors were often from distinct language families, differences between the people appear to have been more influenced by environmental factors as opposed to linguistic affinities. Thus, the Plains Miwok were more similar to the nearby Yokuts than to foothill members of their own language group. Similarities in cultural inventory co-varied with distance from other groups and proximity to culturally diverse people. The material culture of the southern San Joaquin Yokuts was therefore more closely related to that of their non-Yokuts neighbors than to that of Delta members of their own language group.

Trade was well developed, with mutually beneficial interchange of needed or desired goods. Obsidian, rare in the San Joaquin Valley, was obtained by trade with Paiute and Shoshoni groups on the eastern side of the Sierra Nevada, where numerous sources of this material are located, and to some extent from the Napa Valley to the north. Shell beads, obtained by the Yokuts from coastal people, and acorns, rare in the Great Basin, were among many items exported to the east by Yokuts traders (Davis 1961).

Economic subsistence was based on the acorn, with substantial dependency on gathering and processing of wild seeds and other vegetable foods. The rivers, streams, and sloughs that formed a maze within the valley provided abundant food resources such as fish, shellfish, and turtles. Game, wild fowl, and small mammals were trapped and hunted to provide protein augmentation of the diet. In general, the eastern portion of the San Joaquin Valley provided a lush environment of varied food resources, with the estimated large population centers reflecting this abundance (Cook 1955; Baumhoff 1963).

Settlements were oriented along the water ways, with their village sites normally placed adjacent to these features for their nearby water and food resources. House structures varied in size and shape (Latta 1949; Kroeber 1925), with most constructed from the readily available tules found in the extensive marshes of the low-lying valley areas. The housepit depressions for the structures ranged in diameter from 3 meters to 18 meters (Wallace 1978:470).

Historical Background

In the early spring of 1851, a brush shelter called “a house of entertainment” was established in the area that would become Snelling. Soon thereafter, Dr. Lewis built the building that would later become Snelling’s Hotel. In the fall of 1851, the Snelling family arrived and purchased the hotel and property (Hoover, Rensch and Rensch 1970).

Snelling was not an early mining town, but served as an important support community on the well-traveled road to the Mariposa mines. Some placer and hydraulic mining did occur in the region in the early years (Clark 1970).

In 1857, Snelling's Ranch became the county seat for Merced County. A courthouse was built in the town that still stands today (McDevitt 2001). Eventually, the importance of the mining industry lessened, and agriculture became more important. The shipping of produce and proximity of the agricultural lands in the Valley instead of the foothills led to the move of the county seat to Merced in 1872 (Hoover, Rensch and Rensch 1970).

Dredge mining occurred in three different periods in the Snelling District: 1907-1919; 1929-1942; and 1946-1952 (Clark 1970). According to the site form created for the region for P-24-001782, the tailings date to the early 1950s, based on information from a single informant. Historical evidence argues against that: the 1918 USGS topographic map for the region shows dredge tailings, primarily on the south side of the Merced River, extending about a mile downstream into the edge of the project area.

At some point, for someone interested in dredging in the region, a review could be made using aerial photographs and the early map to segregate out the sequence of the work. Land ownership and land lease documents from the County Recorder could also help understand the sequence.

As is, the recordation of the tailings has little value. The recorders have made no attempt to interpret the history of the site or to provide details beyond what they see on the modern topographic maps. No evaluation of the significance of the site is possible.

RESEARCH

Records of previously recorded cultural resources and cultural resource investigations were examined by the Central California Information Center of the California Historical Resources Information System on September 24, 2020 for the Project Area and a 0.125-mile radius (CCIC File #11511, Appendix 2). No prehistoric period sites have been recorded. Two historic districts have been recorded covering the project area and search radius: P-24-1782 and P-24-1909.

The historic district for the tailings and other mining related features, P-24-1782, includes all of the project area, except the southern portion. Most of the project area in on a portion of the landscape that was never dredged. There is a ditch that dates to before 1915 that in part lies at the northern boundary of the Project Area. The ditch is still present on the modern topographic quadrangle (Figure 5; Appendix 2).

For some unknown reason, archeologists felt it was important to look at a 1937 map and put all of the area serviced by the Merced Irrigation District in that year, a total of about 900 square miles, as a district—P-24-1909. This creates a strange situation by essentially condemning a large section of the region as a "district," even though the majority of the area contains no physical features of the district, and the landscape has considerably changed since 1937. There was apparently no survey to even verify that any of the features from 1937 exist and if there is any integrity of the district. Districts created such as this do a disservice to all researchers. If a district is researched, surveyed, and proper recordation conducted, then it deserves due consideration for impacts of new projects. Several studies in other parts of Merced County have recorded portions of the system.

This assumption that the 900 square mile service area in 1937 is in any way meaningful. With no discretion allowed, the Information Centers are forced to include "paper resources" in the system. Unfortunately, primary numbers are assigned, creating a waste of time for others working in the region. The system is considered not eligible for the National Register of Historic Places.

FIELD SURVEY

The Project Area was subject to a complete survey on October 1, 2020 by Mike Lawson, covering the area with transects no wider than five-meters (Figure 6).

Landform includes flat open oak woodland with introduced bushes and grasses, narrow, dense riparian zones along both sides of the river, and barren rock piles left by historical dredging. The flat area adjacent to Snelling Road has been flattened for building houses and outbuildings, and a modern ditch running alongside the highway diverts storm runoff. It is possible that adjacent dredging activities from decades prior also affected the area where the residences currently are, but no obvious cut-banks or pits are visible.

The majority of the survey area is north of the Merced River and open for conducting ground investigation. The narrow section of the parcel on the south side of the river, however, is completely overgrown with introduced blackberry bushes, poison oak, scrub oaks, introduced brush and shallow ponds covered with water plants. The owner of the property advised caution if attempting to survey due to the presence of adult feral hogs that are exceptionally territorial. Later surveillance of the edges of this area from its southern edge confirmed the claim about the hogs, as very large fresh pig tracks were visible in the mud. Brush and other vegetation were also deemed too dense for adequate survey.

The soil type for section successfully surveyed north of river is silty loam with some areas of sand near the riverbank, and a complete lack of soil in most of the dredge tailings. Soil color appeared uniformly tan throughout the oak woodland, and a lighter brown color in the riparian zone along the water's edge, with a sandier spoil area.

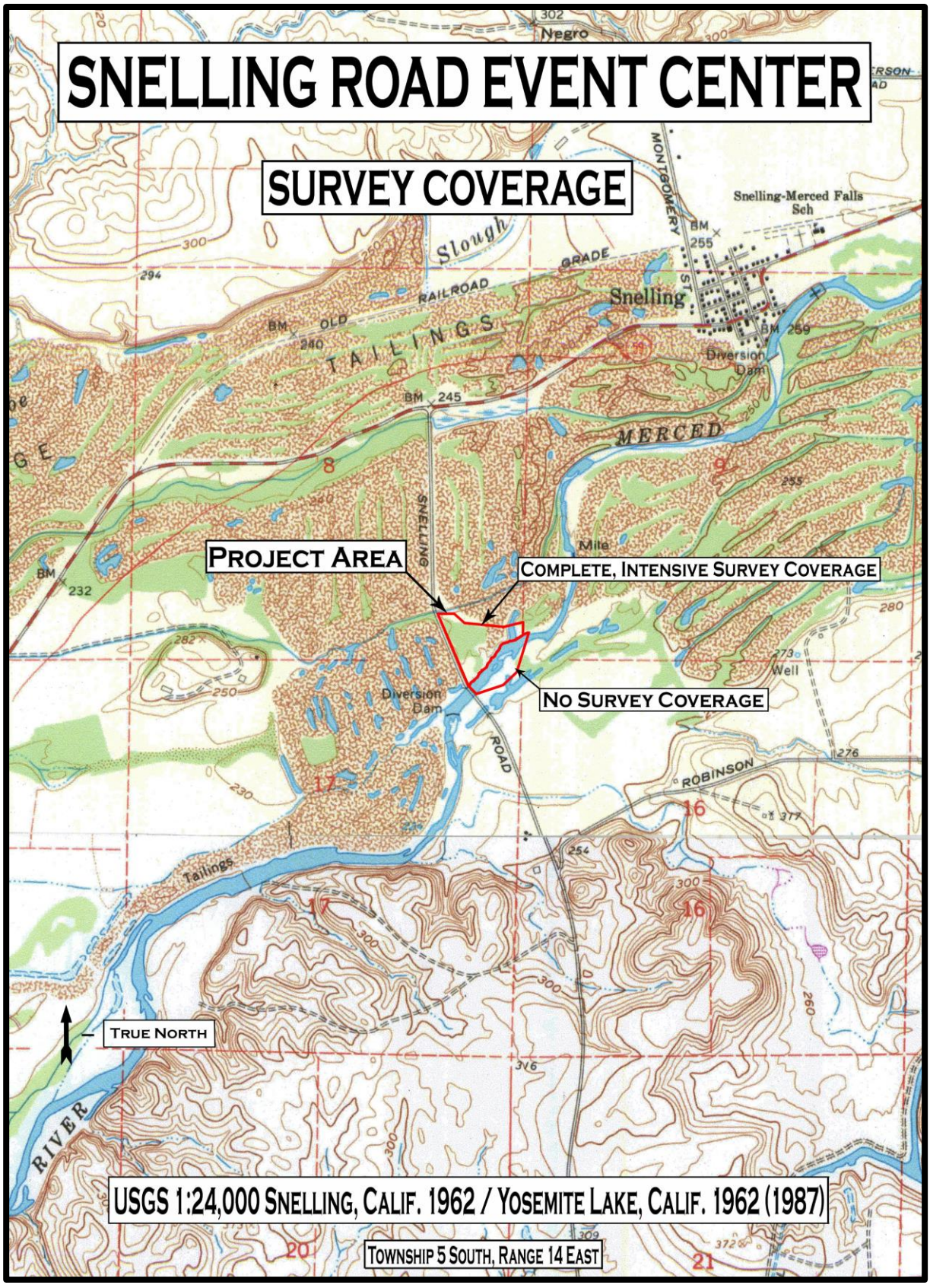

SNELLING ROAD EVENT CENTER
SURVEY COVERAGE
PROJECT AREA
COMPLETE, INTENSIVE SURVEY COVERAGE
NO SURVEY COVERAGE
TRUE NORTH
USGS 1:24,000 SNELLING, CALIF. 1962 / YOSEMITE LAKE, CALIF. 1962 (1987)
TOWNSHIP 5 SOUTH, RANGE 14 EAST
Negro
Slough
Snelling
Snelling-Merced Falls Sch
Diversion Dam
MERCED
TAILINGS
RAILROAD GRADE
MONTGOMERY ST.
SNELLING ROAD
ROBINSON
Tailings
RIVER
Mile
Well

Figure 6

Away from the dredged area, little stone was encountered, except along the riverbank, and stones observed in the oak woodland were smooth and round and identical to those in the dredge tailings and on the river bank.

Survey strategy was influenced by the close proximity to the river, and possibility of previous elevated landform on or close to the parcel. Survey included both very close, two- to three-meter- wide transects and overlapping meandering courses, with close inspection of areas where the ground had been excavated or otherwise disturbed.

Aside from the known mining remains, no other historical resources were observed during the investigation. No features of the Merced Irrigation District (P-24-1909) are present on the property.

The only prehistoric period resources on the property consist of a pile of ground stone artifacts, including pestles, shaped hand stones, bowl mortars, pestle/hand stones and pestles, and hammerstones and an anvil stone. Extra caution was taken in the location of the artifacts and its immediate surrounds for any other evidence of prehistoric use or occupancy. Contact with the landowners revealed that the artifacts had been collected from other parts of the north coastal and central California by the father of one of the current property owners. The artifacts lie near a driveway that will be used for the project, and will be vulnerable, potentially removed by visitors. This area was carefully examined, with no evidence that the artifacts are in place or originated on a site on the property.

Someone viewing the collection could believe that there is a site on the property from which the artifacts were collected, creating problems for the landowners. With the potential for confusion, and the potential loss of artifacts that could be used for interpretive purposes, we strongly hope that the artifacts will be removed from public view and be placed in a secure location. We have prepared a location map, description of the feature and a photograph, as an informally recorded resource, to file with the Central California Information Center (Appendix 3).

CONCLUSIONS

The many acres of dredge tailings that comprise the site recorded as P-24-1782 have not been formally evaluated, but do not appear to be significant resources. They do not represent important events, relate to people important in our past, and are not distinctive—dredge tailings exist in many areas in California. and in other countries in the world who used this technology to extract gold after long distance transmission of power became available. The tailings on the Project Area are not significant resources.

The prehistoric period artifacts are removed from their original locations, and represent a collection with no particular interpretive value, originating in many different regions of the state. They do not constitute a significant resource under CEQA criteria.

For the purposes of CEQA, we conclude that there will be no impact to important cultural resources from implementation of the project.

RECOMMENDATIONS

Although no prehistoric sites were found during the survey, there is a slight possibility that a site may exist and be totally obscured by vegetation, fill, or other historic activities, leaving no surface evidence. Should artifacts or unusual amounts of stone, bone, or shell be uncovered during construction activities, an archeologist should be consulted for on-the-spot evaluation. If the bone appears to be human, state law requires that the Merced County Coroner be contacted. If the Coroner determines that the bone is human and is most likely Native American in origin, he must contact the Native American Heritage Commission (916-322-7791).

BIBLIOGRAPHY

Baumhoff, Martin A.

1963 Ecological Determinants of Aboriginal California Populations. *University of California Publications in American Archaeology and Ethnology* 49(2):155-236. Berkeley.

Beardsley, Richard K.

1954 Temporal and Areal Relationships in Central California Archeology (parts 1 and 11). *University of California Archaeological Survey Reports* 24, 25. Berkeley.

Bennyhoff, James A.

1977 Ethnogeography of the Plains Miwok. *Center for Archaeological Research at Davis, Publications* 5. University of California, Davis.

Bennyhoff, James A. and Robert F. Heizer

1958 Cross-Dating Great Basin Sites by Californian Shell Beads. *University of California Archaeological Survey Report*, 42:60-92. Berkeley.

Cook, Sherburne F.

1955 The Aboriginal Populations of the San Joaquin Valley, California. *University of California Anthropological Records* 16(2). Berkeley.

Davis, James T.

1961 Trade Routes and Economic Exchange among the Indians of California. *University of California Archaeological Survey Reports* 54:1-71. Berkeley.

Frickstad, Walter N.

1955 *A Century of California Post Offices*. Walter N. Frickstad, Oakland.

Fredrickson, David A.

1973 *Early Cultures of the North Coast Ranges, California*. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

Gudde, Erwin

1969 *California Place Names*. University of California Press, Berkeley.

Hoover, Mildred, Hero E. Rensch, Ethel G. Rensch and William N. Abeloe

1990 *Historic Spots in California* (Fourth Edition), revised by Douglas E. Kyle. Stanford University Press, Stanford.

Kroeber, Alfred L.

1953 *Handbook of the California Indians*. California Book Company, Ltd., Berkeley.

Latta, F. F.

1949 *Handbook of the Yokuts Indians*. Bear State Books, Oildale, California.

Lillard, Jeremiah B., Robert F. Heizer and Franklin Fenenga

1939 An Introduction to the Archaeology of Central California. *Sacramento Junior College, Department of Anthropology Bulletin* 2. Sacramento.

Lillard, Jeremiah B. and William K. Purves

1936 The Archeology of the Deer Creek-Cosumnes Area, Sacramento County, California. *Sacramento Junior College, Department of Anthropology Bulletin* 1. Sacramento.

McDevitt, Ray, editor

2001 *Courthouses of California: An Illustrated History*. California Historical Society, San Francisco and Heyday Books, Berkeley.

Moratto, Michael J.

1984 *California Archaeology*. Academic Press, New York.

Ragir, Sonia

1972 The Early Horizon in Central California Prehistory. *University of California Research Contributions* 15. Berkeley.

Schulz, Peter D.

1981 *Osteoarchaeology and Subsistence Change in Prehistoric Central California*.

Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

Schenck, W. Egbert and Elmer Dawson

1929 Archaeology of the Northern San Joaquin Valley. *University of California Publications in American Archaeology and Ethnology* 25(4):289-413. Berkeley.

Smith, Wallace

1960 *Garden of the Sun*. Privately printed.

Thompson and West

1879 *History of San Joaquin County, California, with Illustrations*. Reprinted in 1968 by Howell-North Books, Berkeley.

Wallace, William J.

1978 Northern Valley Yokuts. In *California*, edited by Robert F. Heizer, pp. 462-470. Handbook of North American Indians, vol. 8, William G. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Willey, Gordon R. and Phillip Phillips

1958 *Method and Theory in American Archaeology*. The University of Chicago Press, Chicago.

APPENDIX 1

Resumes

PEAK & ASSOCIATES, INC.
RESUME

MELINDA A. PEAK **January 2021**
Senior Historian/Archeologist
3941 Park Drive, Suite 20 #329
El Dorado Hills, CA 95762
(916) 939-2405

PROFESSIONAL EXPERIENCE

Ms. Peak has served as the principal investigator on a wide range of prehistoric and historic excavations throughout California. She has directed laboratory analyses of archeological materials, including the historic period. She has also conducted a wide variety of cultural resource assessments in California, including documentary research, field survey, Native American consultation and report preparation.

In addition, Ms. Peak has developed a second field of expertise in applied history, specializing in site-specific research for historic period resources. She is a registered professional historian and has completed a number of historical research projects for a wide variety of site types.

Through her education and experience, Ms. Peak meets the Secretary of Interior Standards for historian, architectural historian, prehistoric archeologist and historic archeologist.

EDUCATION

M.A. - History - California State University, Sacramento, 1989
Thesis: *The Bellevue Mine: A Historical Resources Management Site Study in Plumas and Sierra Counties, California*
B.A. - Anthropology - University of California, Berkeley

RECENT PROJECTS

Ms. Peak completed the cultural resource research and contributed to the text prepared for the DeSabla-Centerville PAD for the initial stage of the FERC relicensing. She also served cultural resource project manager for the FERC relicensing of the Beardsley-Donnells Project. For the South Feather Power Project and the Woodleaf-Palermo and Sly Creek Transmission Lines, her team completing the technical work for the project.

In recent months, Ms. Peak has completed several determinations of eligibility and effect documents in coordination with the Corps of Engineers for projects requiring federal permits, assessing the eligibility of a number of sites for the National Register of Historic Places. She has also completed historical research projects on a wide variety of topics for a number of projects including the

development of navigation and landings on the Napa River, wineries, farmhouses dating to the 1860s, bridges, an early roadhouse, Folsom Dam and a section of an electric railway line.

In recent years, Ms. Peak has prepared a number of cultural resource overviews and predictive models for blocks of land proposed for future development for general and specific plans. She has been able to direct a number of surveys of these areas, allowing the model to be tested.

She served as principal investigator for the multi-phase Twelve Bridges Golf Club project in Placer County. She served as liaison with the various agencies, helped prepare the historic properties treatment plan, managed the various phases of test and data recovery excavations, and completed the final report on the analysis of the test phase excavations of a number of prehistoric sites. She is currently involved as the principal investigator for the Teichert Quarry project adjacent to Twelve Bridges in the City of Rocklin, coordinating contacts with Native Americans, the Corps of Engineers and the Office of Historic Preservation.

Ms. Peak has served as project manager for a number of major survey and excavation projects in recent years, including the many surveys and site definition excavations for the 172-mile-long Pacific Pipeline proposed for construction in Santa Barbara, Ventura and Los Angeles counties. She also completed an archival study in the City of Los Angeles for the project. She also served as principal investigator for a major coaxial cable removal project for AT&T.

Additionally, she completed a number of small surveys, served as a construction monitor at several urban sites, and conducted emergency recovery excavations for sites found during monitoring. She has directed the excavations of several historic complexes in Sacramento, Placer and El Dorado Counties.

Ms. Peak is the author of a chapter and two sections of a published history (1999) of Sacramento County, *Sacramento: Gold Rush Legacy, Metropolitan Legacy*. She served as the consultant for a children's book on California, published by Capstone Press in 2003 in the Land of Liberty series.

PEAK & ASSOCIATES, INC.
RESUME

MICHAEL LAWSON **January 2021**
Archeological Specialist
3941 Park Drive, Suite 20-329
El Dorado Hills, CA 95672
(916) 939-2405

PROFESSIONAL EXPERIENCE

Mr. Lawson has compiled an excellent record of supervision of excavation and survey projects for both the public and private sectors over the past twenty-two years. He has conducted a number of surveys throughout northern and central California, as well as serving as an archeological technician and crew chief for a number of excavation projects.

EDUCATION

B.A. - Anthropology - California State University, Sacramento

Special Course: Comparative Osteology. University of Tennessee, Knoxville. Forensic Anthropology Center. January 2018.

Intensive lab and outdoor study with human example from outdoor research facility, including typical and non-metric examples, compared with fifty non-human species most commonly confused with human remains. Outdoor research facility "The Body Farm" study included survey, photography, collection and identification of faunal and human bone fragments, with a Power Point presentation discussing finds.

EXPERIENCE

- Extensive monitoring of open space, streets and project development areas for prehistoric period and historic period resources. Areas monitored include Sutter Street in Folsom; Mud Creek Archeological District in Chico; Camp Roberts, San Luis Obispo County; Avila Beach, San Luis Obispo County; Edgewood Golf Course, South Lake Tahoe; Davis Water Project, Davis; Star Bend levee section, Sutter County; Feather River levees, Sutter County; Bodega Bay, Sonoma County; San Jose BART line extension, Santa Clara County; and numerous sites for PG&E in San Francisco.
- Over twenty years of experience working in CRM, volunteer, and academic settings in California historic, proto-historic, and prehistoric archaeology.
- Expertise in pedestrian survey, excavation, feature (including burial) exposure, laboratory techniques, research. Field positions include crew chief and lead technician.

APPENDIX 2

CCIC Record Search

CENTRAL CALIFORNIA INFORMATION CENTER

California Historical Resources Information System

Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307

Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties

Date: 9/24/2020

Records Search File No.: 11511 I
Access Agreement: #137
Project: Snelling Event Center

Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20-329
El Dorado Hills, CA 95762
916-939-2405 peakinc@sbcglobal.net

Billing email: peakinc@surewest.net
916-283-5238

Dear Mr. Gerry:

The Central California Information Center received your record search request for the project area referenced above, located on the Snelling 7.5' quadrangle in Merced County. The following reflects the results of the records search for the project study area and radius:

As per data currently available at the CCaIC, the locations of resources/reports are provided in the following format: ☒ custom GIS maps ☐ shape files ☐ hand-drawn maps

Summary Data:

Resources within the project area:	2: P-24-001782, 1909
Resources within the 1/8-mile radius:	None formally reported to the Information Center other than the extension into the radius of the resource boundaries referenced above.
Reports within the project area:	None formally reported to the Information Center. Note: The resources recorded on the project were documented as a result of investigations outside the project/radius. In the event you might be interested in the reports that discuss these resources, we have included the Resource Database Detail pages that pertain to the resources with the list of pertinent reports.
Reports within the 1/8-mile radius:	None formally reported to the Information Center.

Resource Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Database Printout (details):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Report Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Resource Record Copies:	☐ enclosed	☒ not requested	☐ nothing listed
Report Copies:	☐ enclosed	☒ not requested	☐ nothing listed
OHP Historic Properties Directory: New Excel File: Built Environment Resource Directory (BERD) Dated 12/17/2019	☐ enclosed	☐ not requested	☒ nothing listed
Archaeological Determinations of Eligibility:	☐ enclosed	☐ not requested	☒ nothing listed
CA Inventory of Historic Resources (1976):	☐ enclosed	☒ not requested	☐ nothing listed
Caltrans Bridge Survey:	☐ enclosed	☒ not requested	☐ nothing listed
Ethnographic Information:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Literature:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Maps:	☐ enclosed	☒ not requested	☐ nothing listed
Local Inventories:	☐ enclosed	☒ not requested	☐ nothing listed
GLO and/or Rancho Plat Maps:	☐ enclosed	☒ not requested	☐ nothing listed
Shipwreck Inventory:	☒ not available at CCIC; please go to http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp		
Soil Survey Maps:	☒ not available at CCIC; please go to http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx		

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Note: Billing will be transmitted separately via email by our Financial Services office *($188.80), payable within 60 days of receipt of the invoice.

If you wish to include payment by Credit Card, you must wait to receive the official invoice from Financial Services so that you can reference the CMP # (Invoice Number), and then contact the link below:

https://commerce.cashnet.com/ANTHROPOLOGY

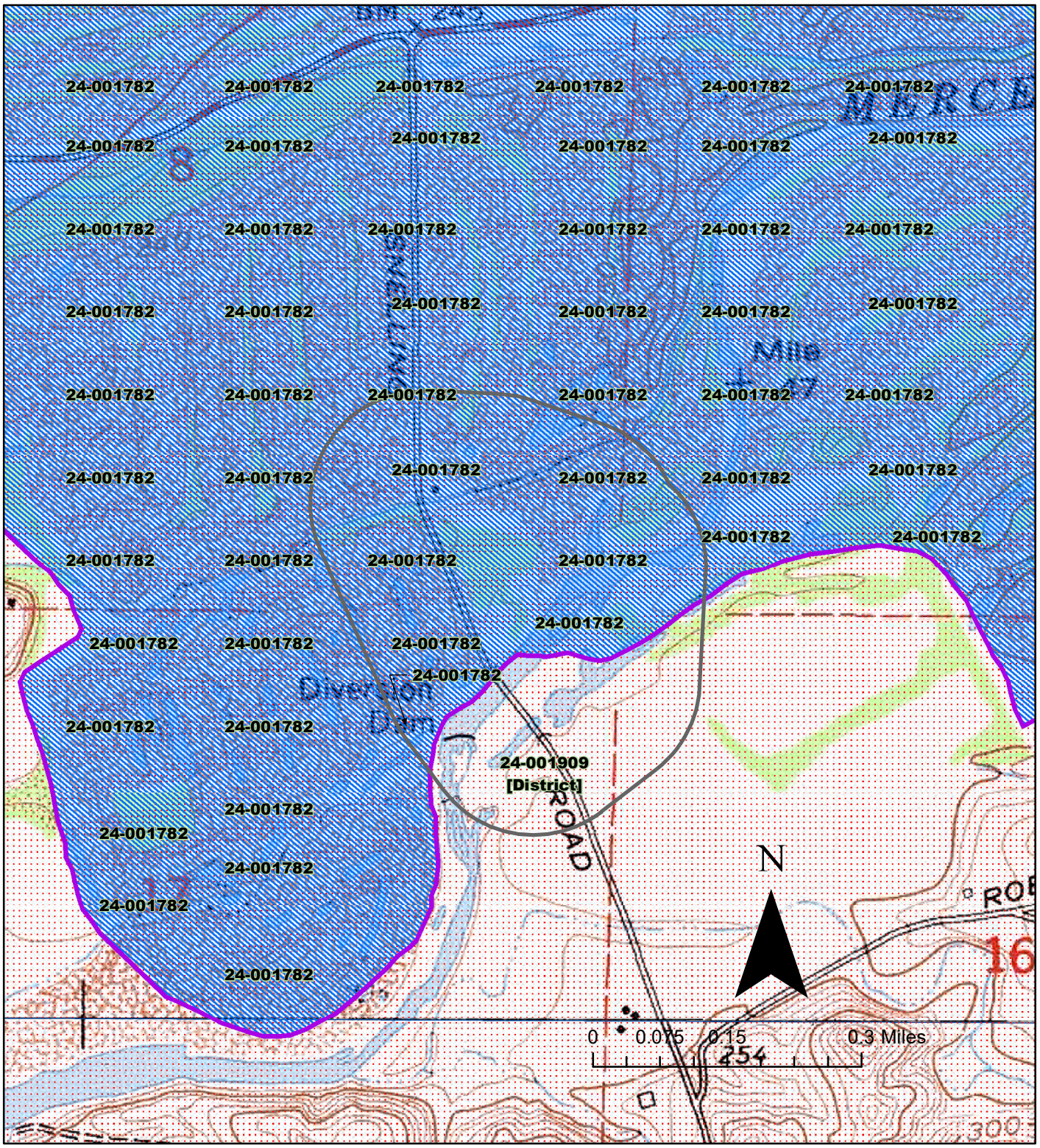
Sincerely,

E. A. Greathouse

E. A. Greathouse, Coordinator
Central California Information Center
California Historical Resources Information System

* Invoice Request sent to: Laurie Marroquin CSU Stanislaus Financial Services
lamarroquin@csustan.edu

CCaIC 11511 I Snelling Event Center
Resources Map 1/8-mile radius 1:10,000-scale
Snelling USGS 7.5' Quadrangle



Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-24-001782		Resource Name - Merced River Ranch Dredge Tailings; Other - CA-MRR-02; FR-2	Site, Other	Historic	AH04; AH07; AH09; HP22	2002 (K. Syda, Far Western Anthropological Research Group, Inc.; for Caltrans); 2006 (Michelle St. Clair, URS Corporation; for Stillwater Sciences); 2012 (Ben Elliott, Chris Peske, URS Corporation; for Cramer Fish Sciences); 2015 (M. Kress, California Department of Water Resources)	ME-05498, ME-05499, ME-05500, ME-05501, ME-06671, ME-06922, ME-07563, ME-08192, ME-09164
P-24-001909		Resource Name - Merced Irrigation District (proposed historic district)	District	Historic	HP11; HP20; HP21; HP22	2007 (M. Bunse, S. J. Melvin, JRP Historical Consulting); 2010 (Michael H. Dice, Michael Brandman Associates); 2010 (Michael H. Dice, Michael Brandman Associates); 2011 (Shannon L. Loftus, ACE Environmental)	ME-06468, ME-07488, ME-07704, ME-07959, ME-08192, ME-08548, ME-08598, ME-08678, ME-09003, ME-09006, ME-09007, ME-09008

Resource Detail: P-24-001782

Identifying information

Primary No.: P-24-001782
Trinomial:
Name: Merced River Ranch Dredge tailings
Other IDs:

Type	*Name*
Resource Name	Merced River Ranch Dredge Tailings
Other	CA-MRR-02; FR-2

Cross-refs:

Attributes

Resource type: Site, Other
Age: Historic
Information base: Survey
Attribute codes: AH04 (Privies/dumps/trash scatters) - Dredging cables and other metal debris; AH07 (Roads/trails/railroad grades) - trail (paved sidewalk); AH09 (Mines/quarries/tailings) - Tailings fields; HP22 (Lake/river/reservoir) - River, ponds
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
5/1/2012	Ben Elliott, Chris Peske	URS Corporation; for Cramer Fish Sciences	Project: Merced River Restoration Project, Henderson Park
7/30/2002	K. Syda	Far Western Anthropological Research Group, Inc.; for Caltrans	for Caltrans Rural Conventional Highways project (ME-05498, 5499, 5500, 5501)
3/17/2006	Michelle St. Clair	URS Corporation; for Stillwater Sciences	Project: Merced River Corridor Restoration
7/9/2015	M. Kress	California Department of Water Resources	Project: Merced River Ranch Dredger Tailings Screening Project

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
ME-05498	2004	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume I: Summary of Methods and Findings	Far Western Anthropological Research Group, Inc.; for Caltrans District 10
ME-05499	2004	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways, Merced County, California: State Routes 33, 59, 140, and 152; Volume I - Report and Appendices.	Far Western Anthropological Research Group, Inc., et al.; for Caltrans District 10
ME-05500	2004	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume II E: Merced County.	Far Western Anthropological Research Group, Inc., et al.; for Caltrans District 10
ME-05501	2004	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume III: Geoarchaeological Study	Far Western Anthropological Research Group, Inc.; for Caltrans District 10
ME-06671	2006	Cultural Resources Final Technical Report, Merced River Corridor Restoration Plan, Phase 4: Dredger Tailings Reach, Merced County, California.	URS Corporation; prepared for Stillwater Sciences
ME-06922	2009	Interim Summary of Findings: Archaeological and Historic Properties Reconnaissance Survey of Approximately 101 Acres, Proposed Black Diamond Surface Mining Project	PBS & J

Resource Detail: P-24-001782

ME-07563	2012	Cultural Resources Assessment Technical Report, Henderson Park Merced River Restoration Project, Merced County, California	URS Corporation
ME-08192	2015	Department of Water Resources Archaeological Survey and Cultural Resources Inventory Report, Merced River Ranch Dredger Tailings Screening Project, Merced County, California.	California Department of Water Resources, Division of Environmental Services
ME-09164	2019	Historic Property Survey Report, 10-MER HSIPL-5939(111), Merced Falls Road (CR J16) East of Snelling, Merced County, California	InContext

Location information

County: Merced

USGS quad(s): Snelling, Turlock Lake, Yosemite Lake

Address:

PLSS: T5S R14E NW¼ of NE¼ of Sec. 10 MDBM
T5S R14E SE¼ of SE¼ of Sec. 3 MDBM
T5S R14E SW¼ of SE¼ of Sec. 7 MDBM
T5S R14E SW¼ of NE¼ of Sec. 8 MDBM
T5S R14E NE¼ of NW¼ of Sec. 9 MDBM
T5S R14E SE¼ of Sec. 11 MDBM
T5S R14E SW¼ of Sec. 12 MDBM

UTMs: Zone 10 728643mE 4155512mN NAD27 (East border)
Zone 10 728647mE 4155553mN NAD27 (East border)
Zone 10 728115mE 4155722mN NAD27 (West border)
Zone 10 728134mE 4155794mN NAD27 (West border)
Zone 10 726132mE 4155309mN NAD27
Zone 10 733001mE 4155466mN NAD27 (Northwest)
Zone 10 730130mE 4155140mN NAD27 (Southwest)
Zone 10 731325mE 4155270mN NAD27 (Northeast)
Zone 10 731383mE 4155230mN NAD27 (Southeast)

Management status

Database record metadata

	Date	*User*	
Entered:	9/30/2013		
Last modified:	4/23/2020	egreathouse	
IC actions:	*Date*	*User*	*Action taken*
	9/30/2013	jay	Added placeholder records to fill in primary number sequence.
	9/23/2015	Anthro	RH

Record status:

Resource Detail: P-24-001909

Identifying information

Primary No.: P-24-001909
Trinomial:
Name: Merced Irrigation District (proposed historic district)
Other IDs:

Type	*Name*
Resource Name	Merced Irrigation District (proposed historic district)

Cross-refs: Extends into another county as 22-003197
Is a district with element 24-000085
Is a district with element 24-000086
Is a district with element 24-000088
Is a district with element 24-000090
Is a district with element 24-000091
Is a district with element 24-000092
Is a district with element 24-000096
Is a district with element 24-000488
Is a district with element 24-000552
Is a district with element 24-000574
Is a district with element 24-000581
Is a district with element 24-000606
Is a district with element 24-000607
Is a district with element 24-000608
Is a district with element 24-001679
Is a district with element 24-001771
Is a district with element 24-001783
Is a district with element 24-001882
Is a district with element 24-001883
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Is a district with element 24-001889
Is a district with element 24-001890
Is a district with element 24-001891
Is a district with element 24-001899
Is a district with element 24-001911
Is a district with element 24-002046
Is a district with element 24-002047
Is a district with element 24-002048
Is a district with element 24-002050
Is a district with element 24-002051
Is a district with element 24-002195
Is a district with element 24-002196

Attributes

Resource type: District
Age: Historic
Information base: Survey
Attribute codes: HP11 (Engineering structure) - Eng. Structures; HP20 (Canal/aqueduct) - Canals; HP21 (Dam) - Dams; HP22 (Lake/river/reservoir) - Lakes (reservoirs)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

This district is comprised of numerous individual water conveyance & storage structures & features. The boundaries of District are inexactly defined; currently listed in the BERD (12/19/201) as 6Y, not eligible for the NRHP; nor evaluated

for the California Register or local listing

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
1/29/2011	Shannon L. Loftus	ACE Environmental	Update, commentary on original record; but her project is specific to Cressey 7.5'
10/10/2010	Michael H. Dice	Michael Brandman Associates	Primary record
11/10/2010	Michael H. Dice	Michael Brandman Associates	BSO record, attached to Primary record
1/22/2007	M. Bunse, S. J. Melvin	JRP Historical Consulting	Update and added contributors (received at the CCaIC after the 2010 record by MBA)

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
ME-06468	2007	Archaeological Survey Report for the Atwater-Merced Expressway Project, Merced County, California	Far Western Anthropological Research Group, Inc.
ME-07488	2011	Cultural Resource Records Search and Site Survey, Vista Tower Site, Livingston High School, 1617 Main Street, Livingston, Merced County, California	ACE Environmental, LLC
ME-07704	2011	Section 106 Cultural Resources Assessment for the Garibaldi Lateral and McCoy Lateral Project, Merced Irrigation District, County of Merced, California (Revised).	Michael Brandman Associates; for MID; Fremming, Parson, and Pecchenino Consulting Civil Engineers; BUR also in consultation?
ME-07959	2007	Historical Resources Inventory and Evaluation Report, Atwater-Merced Expressway Project, Merced California.	JRP Historical Consulting, LLC. For Merced County Association of Governments
ME-08192	2015	Department of Water Resources Archaeological Survey and Cultural Resources Inventory Report, Merced River Ranch Dredger Tailings Screening Project, Merced County, California.	California Department of Water Resources, Division of Environmental Services
ME-08548	2016	Cultural Resources Inventory for the Merced Service Center Project, Merced County, California.	Applied EarthWorks, Inc. for PG&E
ME-08598	2016	Finding of Effect Yosemite Lake Estates Project Near Merced, Merced County, California	LSA Associates, Inc. for 5Gs Corporation
ME-08678	2015	Phase I Cultural Resources Inventory, U.S. Department of Agriculture Wells Survey, Tract #103280, Roy and Dana Richards Property, Merced County, California	UltraSystems Environmental Inc. for California State Farm Agency Office
ME-09003	2019	Cultural and Paleontoloical Resource Inventory and Effects Assessment for the Merced Landfill Pipeline Project, Merced County, California	Natural Investigations Company for Ascent Environmental, Inc.
ME-09006	2017	Section 106 Cultural Resources Assessment, Atwater Drain Project, Merced Irrigation District, Merced County, California; BOR Reclamation Project Tracking Number 12-SCAO-136	FirstCarbon Solutions for Merced Irrigation District and Quad Knopf, Inc.
ME-09007	2017	Section 106 Cultural Resources Assessment, McCoy Lateral Relining Project, Merced Irrigation District, Merced County, California; BOR Reclamation Project Tracking Number 12-SCAO-136	First carbon Solutions for Merced Irrigation District and Quad Knopf, Inc.
ME-09008	2016	Section 106 Cultural Resources Assessment, Highway 59 and Gallo Bridge Weather and Gauge Station Project, Merced Irrigation District, Merced County, California; Project #15-SCAO-225	FirstCarbon Solutions for Merced Irrigation District and Quad Knopf, Inc.

Resource Detail: P-24-001909

Location information

County: Merced

USGS quad(s): Atwater, Coulterville, Cressey, Denair, El Nido, Gustine, Le Grand, Merced, Merced Falls, Penon Blanco Peak, Plainsburg, Planada, Sandy Mush, Snelling, Stevinson, Turlock, Turlock Lake, Turner Ranch, Winton, Yosemite Lake

Address:

PLSS: T8S R9E Sec. MDBM
T3S R16E Sec. MDBM

UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/25/2012	ccic-admin	
Last modified:	4/22/2020	egreathouse	
IC actions:	*Date*	*User*	*Action taken*
	9/29/2014	Anthro	HB
	10/2/2014	Anthro	HB

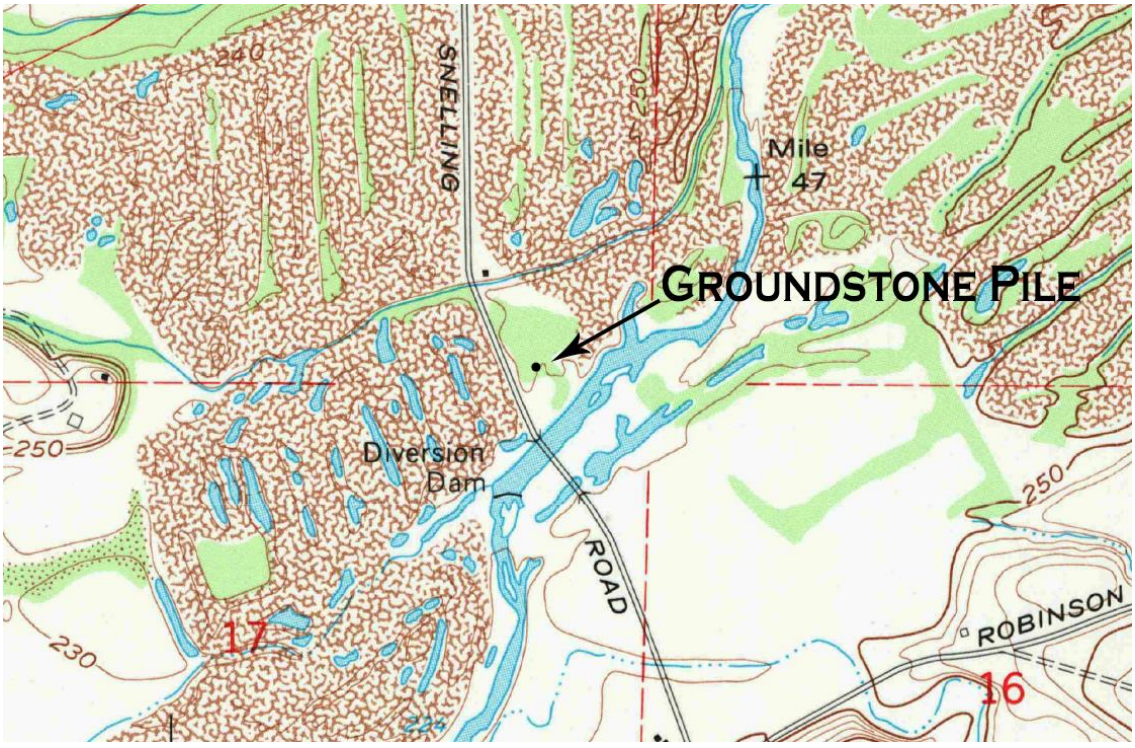
Record status:

APPENDIX 3

Informal Recordation of Prehistoric Artifacts

Informal Recordation

10/2/2020. The current owner of the parcel and his wife told me that his grandfather was a farmer near Fairmead and Chowchilla, as well as the north coast by Sea Ranch, and these groundstone artifacts were the remainder of his huge collection after most of it—the best pieces—were stolen from his property when he went into an assisted living home. Rick and his wife assured me they were not from the current project area. No other prehistoric period artifacts were discovered anywhere else within the current project area despite an intensive, complete inspection and generally good surface visibility.



Appendix C

CalEEMod Results and Energy Calculations

APPENDIX A
CALEEMOD ASSUMPTIONS

Air District: San Joaquin Valley

Climate Zone: 1

Land Use Setting: Urban

Start of Construction: Tuesday, March 1, 2022

Operational Year: 2022

Utility Company: PG&E

Land Uses:

LAND USE TYPE AND SUBTYPE	*UNIT AMOUNT AND METRIC*	*LOT ACREAGE*	*SQUARE FOOTAGE*	*POPULATION*
Parking – Other Non-Asphalt Surface	22.5 KSF	--	--	--
Recreational – Quality Restaurant	1.472 KSF	--	--	--

Construction Tab – Phasing: Default (no demolition)

Construction Tab – Off-Road Equipment: Default (no demolition)

Mitigation Tab: Area - No hearths.

On-road Mobile (Operational) Energy Usage

Note: Assumes that all vehicles that are generated as part of proposed project use gasoline as a fuel source (for simplicity), since the vast majority of vehicles generated by the project would use gasoline.

Unmitigated:

Step 1:

Therefore:

Average Daily VMT:

421 Note: Estimated via CalEEMod output (153,719 annual VMT, divided by 365 days per year).

Step 2: Given:

Fleet Mix (CalEEMod Output)

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
51.19%	3.19%	17.03%	11.92%	1.84%	0.51%	2.16%	11.13%	0.18%	0.16%	0.52%	0.10%	0.07%

And:

Gasoline MPG Factors for each Vehicle Class - Year 2021 (EMFAC2017 Output)

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
30.63	26.25	24.13	19.27	8.28	7.25	N/A	N/A	4.68	4.61	37.16	9.39	4.71

Therefore:

Weighted Average MPG Factors

Gasoline: **23.34**

Step 3: **Therefore:**

18 **daily gallons of gasoline**

or

6,586 **annual gallons of gasoline**

Off-road (i.e. On-site) Mobile (Construction) Energy Usage

Note: For the sake of simplicity, and as a conservative estimation, it was assumed that all off-road vehicles use diesel fuel as an energy source.
Site preparation and grading off-road mobile vehicle on-site gallons of fuel are calculated below.

Given Factor:	**1.5**	**metric tons**	**CO2**	**(provided in CalEEMod Output File)**
Conversion Factor:	2204.6262	pounds	per metric ton	
Intermediate Result:	**3,257**	**pounds**	**CO2**	
Conversion Factor:	22.38	pounds	CO2 per 1 gallon of diesel fuel	Source: U.S. EIA, 2016
Final Result:	**145.52**	**gallons**	**diesel fuel**	http://www.eia.gov/tools/faqs/faq.cfm?id=307&t=11

Mitigated Onsite Scenario	Total CO2 (MT/yr) (provided in CalEEMod Output File)
Site Preparation	0.4310
Grading	1.0462

On-road Mobile (Construction) Energy Usage - Site Preparation

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

5

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

54

Step 2: Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2020

LDA	LDT1	LDT2
30.63	26.25	24.13

Therefore:

Weighted Average Worker MPG Factor

27.91

Step 3: **Therefore:**

2 Worker daily gallons of gasoline

Step 4:

1	**# of Days (CalEEMod Output)**

Therefore:

Result:

2	**Total gallons of gasoline**

On-road Mobile (Construction) Energy Usage - Grading

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

10

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

108

Step 2: Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEM

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2020

LDA	LDT1	LDT2
30.63	26.25	24.13

Therefore:

Weighted Average Worker MPG Factor

27.91

Step 3: **Therefore:**

4 **Worker daily gallons of gasoline**

Step 4: 2 **# of Days (CalEEMod Output)**

Therefore:

Result: **8** **Total gallons of gasoline**

On-road Mobile (Construction) Energy Usage - Building Construction

Step 1:

Total Daily Worker Trips (CalEEMod Output)

10

Total Daily Vendor Trips (CalEEMod Output)

4

Worker Trip Length (miles) (CalEEMod Output)

10.8

Vendor Trip Length (miles) (CalEEMod Output)

7.3

Therefore:

Average Worker Daily VMT:

108

Average Vendor Daily VMT:

29

Step 2:

Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

Fleet Mix for Vendors (CalEEMod Output)

MHD	HHD
0%	100%

And:

MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2020

Gasoline:

LDA	LDT1	LDT2
30.63	26.25	24.13

Diesel:

MHD	HHD
8.58	6.57

Therefore:

Weighted Average Worker (Gasoline) MPG Factor

27.91

Weighted Average Vendor (Diesel) MPG Factor

6.57

Step 3:

Therefore:

4 **Worker daily gallons of gasoline**

Therefore:

4 **Vendor daily gallons of diesel**

Step 4:

100 **# of Days (CalEEMod Output)**

Therefore:

387 **Total gallons of gasoline**

Therefore:

445 **Total gallons of diesel**

On-road Mobile (Construction) Energy Usage - Paving

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

18

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

194

Step 2: Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2020

LDA	LDT1	LDT2
30.63	26.25	24.13

Therefore:

Weighted Average Worker MPG Factor

27.9

Step 3: **Therefore:**

7 Worker daily gallons of gasoline

Step 4: 5 **# of Days (CalEEMod Output)**

Therefore:

Result: **35** **Total gallons of gasoline**

On-road Mobile (Construction) Energy Usage - Architectural Coating

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

2

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

22

Step 2: Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (EMFAC2017 Output) - Year 2020

LDA	LDT1	LDT2
30.63	26.25	24.13

Therefore:

Weighted Average Worker MPG Factor

27.9

Step 3: **Therefore:**

1 Worker daily gallons of gasoline

Step 4: 5 **# of Days (CalEEMod Output)**

Therefore:

Result: **4** **Total gallons of gasoline**

Snelling Event Center

San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	22.50	1000sqft	0.52	22,500.00	0
Quality Restaurant	1.47	1000sqft	0.03	1,472.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	45
Climate Zone	1			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0550	0.4017	0.4065	7.2000e-004	6.8400e-003	0.0201	0.0269	2.0200e-003	0.0185	0.0205	0.0000	63.5895	63.5895	0.0177	0.0000	64.0329
Maximum	**0.0550**	**0.4017**	**0.4065**	**7.2000e-004**	**6.8400e-003**	**0.0201**	**0.0269**	**2.0200e-003**	**0.0185**	**0.0205**	**0.0000**	**63.5895**	**63.5895**	**0.0177**	**0.0000**	**64.0329**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0550	0.4017	0.4065	7.2000e-004	6.8400e-003	0.0201	0.0269	2.0200e-003	0.0185	0.0205	0.0000	63.5894	63.5894	0.0177	0.0000	64.0328
Maximum	**0.0550**	**0.4017**	**0.4065**	**7.2000e-004**	**6.8400e-003**	**0.0201**	**0.0269**	**2.0200e-003**	**0.0185**	**0.0205**	**0.0000**	**63.5894**	**63.5894**	**0.0177**	**0.0000**	**64.0328**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2022	5-31-2022	0.2275	0.2275
2	6-1-2022	8-31-2022	0.2260	0.2260
		Highest	0.2275	0.2275

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.7200e-003	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Energy	9.2000e-004	8.3800e-003	7.0400e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	19.6491	19.6491	6.5000e-004	2.7000e-004	19.7446
Mobile	0.0342	0.3660	0.2558	1.1700e-003	0.0586	9.5000e-004	0.0596	0.0158	9.0000e-004	0.0167	0.0000	108.8289	108.8289	0.0116	0.0000	109.1178
Waste						0.0000	0.0000		0.0000	0.0000	0.2720	0.0000	0.2720	0.0161	0.0000	0.6739
Water						0.0000	0.0000		0.0000	0.0000	0.1416	0.7314	0.8729	0.0146	3.5000e-004	1.3416
Total	**0.0439**	**0.3744**	**0.2630**	**1.2200e-003**	**0.0586**	**1.5900e-003**	**0.0602**	**0.0158**	**1.5400e-003**	**0.0173**	**0.4136**	**129.2098**	**129.6233**	**0.0429**	**6.2000e-004**	**130.8782**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.7200e-003	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Energy	9.2000e-004	8.3800e-003	7.0400e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	19.6491	19.6491	6.5000e-004	2.7000e-004	19.7446
Mobile	0.0342	0.3660	0.2558	1.1700e-003	0.0586	9.5000e-004	0.0596	0.0158	9.0000e-004	0.0167	0.0000	108.8289	108.8289	0.0116	0.0000	109.1178
Waste						0.0000	0.0000		0.0000	0.0000	0.2720	0.0000	0.2720	0.0161	0.0000	0.6739
Water						0.0000	0.0000		0.0000	0.0000	0.1416	0.7314	0.8729	0.0146	3.5000e-004	1.3416
Total	**0.0439**	**0.3744**	**0.2630**	**1.2200e-003**	**0.0586**	**1.5900e-003**	**0.0602**	**0.0158**	**1.5400e-003**	**0.0173**	**0.4136**	**129.2098**	**129.6233**	**0.0429**	**6.2000e-004**	**130.8782**

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

3.0 Construction Detail

Construction Phase

Snelling Event Center - San Joaquin Valley Unified APCD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/15/2022	3/15/2022	5	1	
2	Grading	Grading	3/16/2022	3/17/2022	5	2	
3	Building Construction	Building Construction	3/18/2022	8/4/2022	5	100	
4	Paving	Paving	8/5/2022	8/11/2022	5	5	
5	Architectural Coating	Architectural Coating	8/12/2022	8/18/2022	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.52

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,208; Non-Residential Outdoor: 736; Striped Parking Area: 1,350 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	3.4700e-003	1.9800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4310
Total	**2.9000e-004**	**3.4700e-003**	**1.9800e-003**	**0.0000**	**2.7000e-004**	**1.3000e-004**	**4.0000e-004**	**3.0000e-005**	**1.2000e-004**	**1.5000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4310**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0167	0.0167	0.0000	0.0000	0.0167
Total	**1.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0167**	**0.0167**	**0.0000**	**0.0000**	**0.0167**

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	3.4700e-003	1.9800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4310
Total	**2.9000e-004**	**3.4700e-003**	**1.9800e-003**	**0.0000**	**2.7000e-004**	**1.3000e-004**	**4.0000e-004**	**3.0000e-005**	**1.2000e-004**	**1.5000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4310**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0167	0.0167	0.0000	0.0000	0.0167
Total	**1.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0167**	**0.0167**	**0.0000**	**0.0000**	**0.0167**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1000e-004	6.4100e-003	7.4700e-003	1.0000e-005		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	1.0414	1.0414	1.9000e-004	0.0000	1.0462
Total	**7.1000e-004**	**6.4100e-003**	**7.4700e-003**	**1.0000e-005**	**7.5000e-004**	**3.4000e-004**	**1.0900e-003**	**4.1000e-004**	**3.2000e-004**	**7.3000e-004**	**0.0000**	**1.0414**	**1.0414**	**1.9000e-004**	**0.0000**	**1.0462**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	2.0000e-005	2.4000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0668	0.0668	0.0000	0.0000	0.0669
Total	**4.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0668**	**0.0668**	**0.0000**	**0.0000**	**0.0669**

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1000e-004	6.4100e-003	7.4700e-003	1.0000e-005		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	1.0414	1.0414	1.9000e-004	0.0000	1.0462
Total	**7.1000e-004**	**6.4100e-003**	**7.4700e-003**	**1.0000e-005**	**7.5000e-004**	**3.4000e-004**	**1.0900e-003**	**4.1000e-004**	**3.2000e-004**	**7.3000e-004**	**0.0000**	**1.0414**	**1.0414**	**1.9000e-004**	**0.0000**	**1.0462**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	2.0000e-005	2.4000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0668	0.0668	0.0000	0.0000	0.0669
Total	**4.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0668**	**0.0668**	**0.0000**	**0.0000**	**0.0669**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3513	0.3576	5.7000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	50.0739	50.0739	0.0162	0.0000	50.4787
Total	**0.0343**	**0.3513**	**0.3576**	**5.7000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**50.0739**	**50.0739**	**0.0162**	**0.0000**	**50.4787**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0000e-004	0.0209	3.7100e-003	6.0000e-005	1.3300e-003	5.0000e-005	1.3800e-003	3.8000e-004	5.0000e-005	4.3000e-004	0.0000	5.3005	5.3005	3.9000e-004	0.0000	5.3104
Worker	1.8000e-003	1.1400e-003	0.0121	4.0000e-005	4.0000e-003	3.0000e-005	4.0200e-003	1.0600e-003	2.0000e-005	1.0900e-003	0.0000	3.3411	3.3411	8.0000e-005	0.0000	3.3431
Total	**2.4000e-003**	**0.0220**	**0.0158**	**1.0000e-004**	**5.3300e-003**	**8.0000e-005**	**5.4000e-003**	**1.4400e-003**	**7.0000e-005**	**1.5200e-003**	**0.0000**	**8.6416**	**8.6416**	**4.7000e-004**	**0.0000**	**8.6535**

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3513	0.3576	5.7000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	50.0738	50.0738	0.0162	0.0000	50.4787
Total	**0.0343**	**0.3513**	**0.3576**	**5.7000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**50.0738**	**50.0738**	**0.0162**	**0.0000**	**50.4787**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0000e-004	0.0209	3.7100e-003	6.0000e-005	1.3300e-003	5.0000e-005	1.3800e-003	3.8000e-004	5.0000e-005	4.3000e-004	0.0000	5.3005	5.3005	3.9000e-004	0.0000	5.3104
Worker	1.8000e-003	1.1400e-003	0.0121	4.0000e-005	4.0000e-003	3.0000e-005	4.0200e-003	1.0600e-003	2.0000e-005	1.0900e-003	0.0000	3.3411	3.3411	8.0000e-005	0.0000	3.3431
Total	**2.4000e-003**	**0.0220**	**0.0158**	**1.0000e-004**	**5.3300e-003**	**8.0000e-005**	**5.4000e-003**	**1.4400e-003**	**7.0000e-005**	**1.5200e-003**	**0.0000**	**8.6416**	**8.6416**	**4.7000e-004**	**0.0000**	**8.6535**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6200e-003	0.0148	0.0176	3.0000e-005		7.4000e-004	7.4000e-004		6.9000e-004	6.9000e-004	0.0000	2.3492	2.3492	6.8000e-004	0.0000	2.3663
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.6200e-003**	**0.0148**	**0.0176**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**2.3492**	**2.3492**	**6.8000e-004**	**0.0000**	**2.3663**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.0000e-004	1.0800e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3007	0.3007	1.0000e-005	0.0000	0.3009
Total	**1.6000e-004**	**1.0000e-004**	**1.0800e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3007**	**0.3007**	**1.0000e-005**	**0.0000**	**0.3009**

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6200e-003	0.0148	0.0176	3.0000e-005		7.4000e-004	7.4000e-004		6.9000e-004	6.9000e-004	0.0000	2.3492	2.3492	6.8000e-004	0.0000	2.3663
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.6200e-003**	**0.0148**	**0.0176**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**2.3492**	**2.3492**	**6.8000e-004**	**0.0000**	**2.3663**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.0000e-004	1.0800e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3007	0.3007	1.0000e-005	0.0000	0.3009
Total	**1.6000e-004**	**1.0000e-004**	**1.0800e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3007**	**0.3007**	**1.0000e-005**	**0.0000**	**0.3009**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0149					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	3.5200e-003	4.5300e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.0154**	**3.5200e-003**	**4.5300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.2000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0334	0.0334	0.0000	0.0000	0.0334
Total	**2.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0334**	**0.0334**	**0.0000**	**0.0000**	**0.0334**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0149					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	3.5200e-003	4.5300e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.0154**	**3.5200e-003**	**4.5300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.2000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0334	0.0334	0.0000	0.0000	0.0334
Total	**2.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0334**	**0.0334**	**0.0000**	**0.0000**	**0.0334**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0342	0.3660	0.2558	1.1700e-003	0.0586	9.5000e-004	0.0596	0.0158	9.0000e-004	0.0167	0.0000	108.8289	108.8289	0.0116	0.0000	109.1178
Unmitigated	0.0342	0.3660	0.2558	1.1700e-003	0.0586	9.5000e-004	0.0596	0.0158	9.0000e-004	0.0167	0.0000	108.8289	108.8289	0.0116	0.0000	109.1178

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Quality Restaurant	132.41	138.90	106.22	153,719	153,719
Total	132.41	138.90	106.22	153,719	153,719

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.511925	0.031902	0.170344	0.119204	0.018408	0.005097	0.021580	0.111258	0.001794	0.001564	0.005229	0.000954	0.000741
Quality Restaurant	0.511925	0.031902	0.170344	0.119204	0.018408	0.005097	0.021580	0.111258	0.001794	0.001564	0.005229	0.000954	0.000741

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10.5214	10.5214	4.8000e-004	1.0000e-004	10.5626
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10.5214	10.5214	4.8000e-004	1.0000e-004	10.5626
NaturalGas Mitigated	9.2000e-004	8.3800e-003	7.0400e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	9.1277	9.1277	1.7000e-004	1.7000e-004	9.1819
NaturalGas Unmitigated	9.2000e-004	8.3800e-003	7.0400e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	9.1277	9.1277	1.7000e-004	1.7000e-004	9.1819

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	171046	9.2000e-004	8.3800e-003	7.0400e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	9.1277	9.1277	1.7000e-004	1.7000e-004	9.1819
Total		**9.2000e-004**	**8.3800e-003**	**7.0400e-003**	**5.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**9.1277**	**9.1277**	**1.7000e-004**	**1.7000e-004**	**9.1819**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	171046	9.2000e-004	8.3800e-003	7.0400e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	9.1277	9.1277	1.7000e-004	1.7000e-004	9.1819
Total		**9.2000e-004**	**8.3800e-003**	**7.0400e-003**	**5.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**9.1277**	**9.1277**	**1.7000e-004**	**1.7000e-004**	**9.1819**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	36167	10.5214	4.8000e-004	1.0000e-004	10.5626
Total		**10.5214**	**4.8000e-004**	**1.0000e-004**	**10.5626**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	36167	10.5214	4.8000e-004	1.0000e-004	10.5626
Total		**10.5214**	**4.8000e-004**	**1.0000e-004**	**10.5626**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	8.7200e-003	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Unmitigated	8.7200e-003	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.2000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Total	**8.7100e-003**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.0000**	**4.6000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.2000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Total	**8.7100e-003**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.0000**	**4.6000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.8729	0.0146	3.5000e-004	1.3416
Unmitigated	0.8729	0.0146	3.5000e-004	1.3416

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.446195 / 0.0284805	0.8729	0.0146	3.5000e-004	1.3416
Total		**0.8729**	**0.0146**	**3.5000e-004**	**1.3416**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.446195 / 0.0284805	0.8729	0.0146	3.5000e-004	1.3416
Total		**0.8729**	**0.0146**	**3.5000e-004**	**1.3416**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.2720	0.0161	0.0000	0.6739
Unmitigated	0.2720	0.0161	0.0000	0.6739

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.34	0.2720	0.0161	0.0000	0.6739
Total		**0.2720**	**0.0161**	**0.0000**	**0.6739**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.34	0.2720	0.0161	0.0000	0.6739
Total		**0.2720**	**0.0161**	**0.0000**	**0.6739**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Snelling Event Center

San Joaquin Valley Unified APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	22.50	1000sqft	0.52	22,500.00	0
Quality Restaurant	1.47	1000sqft	0.03	1,472.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	45
Climate Zone	1			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	6.1835	7.4599	7.7493	0.0133	0.8349	0.3735	1.1730	0.4356	0.3437	0.7586	0.0000	1,303.1241	1,303.1241	0.3673	0.0000	1,312.3056
Maximum	**6.1835**	**7.4599**	**7.7493**	**0.0133**	**0.8349**	**0.3735**	**1.1730**	**0.4356**	**0.3437**	**0.7586**	**0.0000**	**1,303.1241**	**1,303.1241**	**0.3673**	**0.0000**	**1,312.3056**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	6.1835	7.4599	7.7493	0.0133	0.8349	0.3735	1.1730	0.4356	0.3437	0.7586	0.0000	1,303.1241	1,303.1241	0.3673	0.0000	1,312.3056
Maximum	**6.1835**	**7.4599**	**7.7493**	**0.0133**	**0.8349**	**0.3735**	**1.1730**	**0.4356**	**0.3437**	**0.7586**	**0.0000**	**1,303.1241**	**1,303.1241**	**0.3673**	**0.0000**	**1,312.3056**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0479	2.0000e-005	2.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.2500e-003	5.2500e-003	1.0000e-005		5.5900e-003
Energy	5.0500e-003	0.0459	0.0386	2.8000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003		55.1318	55.1318	1.0600e-003	1.0100e-003	55.4594
Mobile	0.2475	2.1523	1.5449	7.2600e-003	0.3544	5.5200e-003	0.3599	0.0951	5.2000e-003	0.1003		745.2290	745.2290	0.0719		747.0269
Total	**0.3005**	**2.1983**	**1.5860**	**7.5400e-003**	**0.3544**	**9.0200e-003**	**0.3634**	**0.0951**	**8.7000e-003**	**0.1038**		**800.3660**	**800.3660**	**0.0730**	**1.0100e-003**	**802.4919**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0479	2.0000e-005	2.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.2500e-003	5.2500e-003	1.0000e-005		5.5900e-003
Energy	5.0500e-003	0.0459	0.0386	2.8000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003		55.1318	55.1318	1.0600e-003	1.0100e-003	55.4594
Mobile	0.2475	2.1523	1.5449	7.2600e-003	0.3544	5.5200e-003	0.3599	0.0951	5.2000e-003	0.1003		745.2290	745.2290	0.0719		747.0269
Total	**0.3005**	**2.1983**	**1.5860**	**7.5400e-003**	**0.3544**	**9.0200e-003**	**0.3634**	**0.0951**	**8.7000e-003**	**0.1038**		**800.3660**	**800.3660**	**0.0730**	**1.0100e-003**	**802.4919**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/15/2022	3/15/2022	5	1	
2	Grading	Grading	3/16/2022	3/17/2022	5	2	
3	Building Construction	Building Construction	3/18/2022	8/4/2022	5	100	
4	Paving	Paving	8/5/2022	8/11/2022	5	5	
5	Architectural Coating	Architectural Coating	8/12/2022	8/18/2022	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.52

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,208; Non-Residential Outdoor: 736; Striped Parking Area: 1,350 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367		942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**		**942.5179**	**942.5179**	**0.3048**		**950.1386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0204	0.0105	0.1400	4.1000e-004	0.0411	2.7000e-004	0.0413	0.0109	2.5000e-004	0.0111		40.3723	40.3723	1.0000e-003		40.3973
Total	**0.0204**	**0.0105**	**0.1400**	**4.1000e-004**	**0.0411**	**2.7000e-004**	**0.0413**	**0.0109**	**2.5000e-004**	**0.0111**		**40.3723**	**40.3723**	**1.0000e-003**		**40.3973**

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367	0.0000	942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**	**0.0000**	**942.5179**	**942.5179**	**0.3048**		**950.1386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0204	0.0105	0.1400	4.1000e-004	0.0411	2.7000e-004	0.0413	0.0109	2.5000e-004	0.0111		40.3723	40.3723	1.0000e-003		40.3973
Total	**0.0204**	**0.0105**	**0.1400**	**4.1000e-004**	**0.0411**	**2.7000e-004**	**0.0413**	**0.0109**	**2.5000e-004**	**0.0111**		**40.3723**	**40.3723**	**1.0000e-003**		**40.3973**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225		1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.7528**	**0.3375**	**1.0903**	**0.4138**	**0.3225**	**0.7363**		**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0408	0.0211	0.2800	8.1000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		80.7445	80.7445	2.0000e-003		80.7945
Total	**0.0408**	**0.0211**	**0.2800**	**8.1000e-004**	**0.0822**	**5.3000e-004**	**0.0827**	**0.0218**	**4.9000e-004**	**0.0223**		**80.7445**	**80.7445**	**2.0000e-003**		**80.7945**

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225	0.0000	1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.7528**	**0.3375**	**1.0903**	**0.4138**	**0.3225**	**0.7363**	**0.0000**	**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0408	0.0211	0.2800	8.1000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		80.7445	80.7445	2.0000e-003		80.7945
Total	**0.0408**	**0.0211**	**0.2800**	**8.1000e-004**	**0.0822**	**5.3000e-004**	**0.0827**	**0.0218**	**4.9000e-004**	**0.0223**		**80.7445**	**80.7445**	**2.0000e-003**		**80.7945**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422		1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**		**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0118	0.4131	0.0686	1.1300e-003	0.0271	1.0600e-003	0.0282	7.8100e-003	1.0100e-003	8.8200e-003		118.4403	118.4403	8.2200e-003		118.6458
Worker	0.0408	0.0211	0.2800	8.1000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		80.7445	80.7445	2.0000e-003		80.7945
Total	**0.0526**	**0.4342**	**0.3486**	**1.9400e-003**	**0.1093**	**1.5900e-003**	**0.1109**	**0.0296**	**1.5000e-003**	**0.0311**		**199.1848**	**199.1848**	**0.0102**		**199.4403**

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422	0.0000	1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**	**0.0000**	**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0118	0.4131	0.0686	1.1300e-003	0.0271	1.0600e-003	0.0282	7.8100e-003	1.0100e-003	8.8200e-003		118.4403	118.4403	8.2200e-003		118.6458
Worker	0.0408	0.0211	0.2800	8.1000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		80.7445	80.7445	2.0000e-003		80.7945
Total	**0.0526**	**0.4342**	**0.3486**	**1.9400e-003**	**0.1093**	**1.5900e-003**	**0.1109**	**0.0296**	**1.5000e-003**	**0.0311**		**199.1848**	**199.1848**	**0.0102**		**199.4403**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758		1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6469**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**		**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0735	0.0380	0.5039	1.4600e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		145.3401	145.3401	3.6000e-003		145.4301
Total	**0.0735**	**0.0380**	**0.5039**	**1.4600e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**145.3401**	**145.3401**	**3.6000e-003**		**145.4301**

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758	0.0000	1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6469**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**	**0.0000**	**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0735	0.0380	0.5039	1.4600e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		145.3401	145.3401	3.6000e-003		145.4301
Total	**0.0735**	**0.0380**	**0.5039**	**1.4600e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**145.3401**	**145.3401**	**3.6000e-003**		**145.4301**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.9708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**6.1754**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	8.1700e-003	4.2200e-003	0.0560	1.6000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		16.1489	16.1489	4.0000e-004		16.1589
Total	**8.1700e-003**	**4.2200e-003**	**0.0560**	**1.6000e-004**	**0.0164**	**1.1000e-004**	**0.0165**	**4.3600e-003**	**1.0000e-004**	**4.4600e-003**		**16.1489**	**16.1489**	**4.0000e-004**		**16.1589**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.9708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**6.1754**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	8.1700e-003	4.2200e-003	0.0560	1.6000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		16.1489	16.1489	4.0000e-004		16.1589
Total	**8.1700e-003**	**4.2200e-003**	**0.0560**	**1.6000e-004**	**0.0164**	**1.1000e-004**	**0.0165**	**4.3600e-003**	**1.0000e-004**	**4.4600e-003**		**16.1489**	**16.1489**	**4.0000e-004**		**16.1589**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2475	2.1523	1.5449	7.2600e-003	0.3544	5.5200e-003	0.3599	0.0951	5.2000e-003	0.1003		745.2290	745.2290	0.0719		747.0269
Unmitigated	0.2475	2.1523	1.5449	7.2600e-003	0.3544	5.5200e-003	0.3599	0.0951	5.2000e-003	0.1003		745.2290	745.2290	0.0719		747.0269

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Quality Restaurant	132.41	138.90	106.22	153,719	153,719
Total	132.41	138.90	106.22	153,719	153,719

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.511925	0.031902	0.170344	0.119204	0.018408	0.005097	0.021580	0.111258	0.001794	0.001564	0.005229	0.000954	0.000741
Quality Restaurant	0.511925	0.031902	0.170344	0.119204	0.018408	0.005097	0.021580	0.111258	0.001794	0.001564	0.005229	0.000954	0.000741

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.0500e-003	0.0459	0.0386	2.8000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003		55.1318	55.1318	1.0600e-003	1.0100e-003	55.4594
NaturalGas Unmitigated	5.0500e-003	0.0459	0.0386	2.8000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003		55.1318	55.1318	1.0600e-003	1.0100e-003	55.4594

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	468.62	5.0500e-003	0.0459	0.0386	2.8000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003		55.1318	55.1318	1.0600e-003	1.0100e-003	55.4594
Total		**5.0500e-003**	**0.0459**	**0.0386**	**2.8000e-004**		**3.4900e-003**	**3.4900e-003**		**3.4900e-003**	**3.4900e-003**		**55.1318**	**55.1318**	**1.0600e-003**	**1.0100e-003**	**55.4594**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.46862	5.0500e-003	0.0459	0.0386	2.8000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003		55.1318	55.1318	1.0600e-003	1.0100e-003	55.4594
Total		**5.0500e-003**	**0.0459**	**0.0386**	**2.8000e-004**		**3.4900e-003**	**3.4900e-003**		**3.4900e-003**	**3.4900e-003**		**55.1318**	**55.1318**	**1.0600e-003**	**1.0100e-003**	**55.4594**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0479	2.0000e-005	2.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.2500e-003	5.2500e-003	1.0000e-005		5.5900e-003
Unmitigated	0.0479	2.0000e-005	2.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.2500e-003	5.2500e-003	1.0000e-005		5.5900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.1800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0395					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3000e-004	2.0000e-005	2.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.2500e-003	5.2500e-003	1.0000e-005		5.5900e-003
Total	**0.0479**	**2.0000e-005**	**2.4500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**5.2500e-003**	**5.2500e-003**	**1.0000e-005**		**5.5900e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.1800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0395					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3000e-004	2.0000e-005	2.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.2500e-003	5.2500e-003	1.0000e-005		5.5900e-003
Total	**0.0479**	**2.0000e-005**	**2.4500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**5.2500e-003**	**5.2500e-003**	**1.0000e-005**		**5.5900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Snelling Event Center

San Joaquin Valley Unified APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	22.50	1000sqft	0.52	22,500.00	0
Quality Restaurant	1.47	1000sqft	0.03	1,472.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	45
Climate Zone	1			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	6.1830	7.4672	7.7064	0.0132	0.8349	0.3736	1.1730	0.4356	0.3437	0.7586	0.0000	1,289.6396	1,289.6396	0.3681	0.0000	1,298.8422
Maximum	**6.1830**	**7.4672**	**7.7064**	**0.0132**	**0.8349**	**0.3736**	**1.1730**	**0.4356**	**0.3437**	**0.7586**	**0.0000**	**1,289.6396**	**1,289.6396**	**0.3681**	**0.0000**	**1,298.8422**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	6.1830	7.4672	7.7064	0.0132	0.8349	0.3736	1.1730	0.4356	0.3437	0.7586	0.0000	1,289.6396	1,289.6396	0.3681	0.0000	1,298.8422
Maximum	**6.1830**	**7.4672**	**7.7064**	**0.0132**	**0.8349**	**0.3736**	**1.1730**	**0.4356**	**0.3437**	**0.7586**	**0.0000**	**1,289.6396**	**1,289.6396**	**0.3681**	**0.0000**	**1,298.8422**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0479	2.0000e-005	2.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.2500e-003	5.2500e-003	1.0000e-005		5.5900e-003
Energy	5.0500e-003	0.0459	0.0386	2.8000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003		55.1318	55.1318	1.0600e-003	1.0100e-003	55.4594
Mobile	0.1908	2.1430	1.6204	6.6400e-003	0.3544	5.7900e-003	0.3602	0.0951	5.4600e-003	0.1006		681.1645	681.1645	0.0801		683.1672
Total	**0.2437**	**2.1890**	**1.6614**	**6.9200e-003**	**0.3544**	**9.2900e-003**	**0.3637**	**0.0951**	**8.9600e-003**	**0.1041**		**736.3015**	**736.3015**	**0.0812**	**1.0100e-003**	**738.6322**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0479	2.0000e-005	2.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.2500e-003	5.2500e-003	1.0000e-005		5.5900e-003
Energy	5.0500e-003	0.0459	0.0386	2.8000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003		55.1318	55.1318	1.0600e-003	1.0100e-003	55.4594
Mobile	0.1908	2.1430	1.6204	6.6400e-003	0.3544	5.7900e-003	0.3602	0.0951	5.4600e-003	0.1006		681.1645	681.1645	0.0801		683.1672
Total	**0.2437**	**2.1890**	**1.6614**	**6.9200e-003**	**0.3544**	**9.2900e-003**	**0.3637**	**0.0951**	**8.9600e-003**	**0.1041**		**736.3015**	**736.3015**	**0.0812**	**1.0100e-003**	**738.6322**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/15/2022	3/15/2022	5	1	
2	Grading	Grading	3/16/2022	3/17/2022	5	2	
3	Building Construction	Building Construction	3/18/2022	8/4/2022	5	100	
4	Paving	Paving	8/5/2022	8/11/2022	5	5	
5	Architectural Coating	Architectural Coating	8/12/2022	8/18/2022	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.52

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,208; Non-Residential Outdoor: 736; Striped Parking Area: 1,350 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367		942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**		**942.5179**	**942.5179**	**0.3048**		**950.1386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0192	0.0125	0.1186	3.6000e-004	0.0411	2.7000e-004	0.0413	0.0109	2.5000e-004	0.0111		35.5145	35.5145	8.8000e-004		35.5364
Total	**0.0192**	**0.0125**	**0.1186**	**3.6000e-004**	**0.0411**	**2.7000e-004**	**0.0413**	**0.0109**	**2.5000e-004**	**0.0111**		**35.5145**	**35.5145**	**8.8000e-004**		**35.5364**

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367	0.0000	942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**	**0.0000**	**942.5179**	**942.5179**	**0.3048**		**950.1386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0192	0.0125	0.1186	3.6000e-004	0.0411	2.7000e-004	0.0413	0.0109	2.5000e-004	0.0111		35.5145	35.5145	8.8000e-004		35.5364
Total	**0.0192**	**0.0125**	**0.1186**	**3.6000e-004**	**0.0411**	**2.7000e-004**	**0.0413**	**0.0109**	**2.5000e-004**	**0.0111**		**35.5145**	**35.5145**	**8.8000e-004**		**35.5364**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225		1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.7528**	**0.3375**	**1.0903**	**0.4138**	**0.3225**	**0.7363**		**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0384	0.0250	0.2371	7.1000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		71.0291	71.0291	1.7500e-003		71.0729
Total	**0.0384**	**0.0250**	**0.2371**	**7.1000e-004**	**0.0822**	**5.3000e-004**	**0.0827**	**0.0218**	**4.9000e-004**	**0.0223**		**71.0291**	**71.0291**	**1.7500e-003**		**71.0729**

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225	0.0000	1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.7528**	**0.3375**	**1.0903**	**0.4138**	**0.3225**	**0.7363**	**0.0000**	**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0384	0.0250	0.2371	7.1000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		71.0291	71.0291	1.7500e-003		71.0729
Total	**0.0384**	**0.0250**	**0.2371**	**7.1000e-004**	**0.0822**	**5.3000e-004**	**0.0827**	**0.0218**	**4.9000e-004**	**0.0223**		**71.0291**	**71.0291**	**1.7500e-003**		**71.0729**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422		1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**		**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0124	0.4165	0.0817	1.1000e-003	0.0271	1.1000e-003	0.0282	7.8100e-003	1.0500e-003	8.8600e-003		114.6713	114.6713	9.3100e-003		114.9041
Worker	0.0384	0.0250	0.2371	7.1000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		71.0291	71.0291	1.7500e-003		71.0729
Total	**0.0508**	**0.4414**	**0.3188**	**1.8100e-003**	**0.1093**	**1.6300e-003**	**0.1109**	**0.0296**	**1.5400e-003**	**0.0311**		**185.7003**	**185.7003**	**0.0111**		**185.9770**

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422	0.0000	1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**	**0.0000**	**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0124	0.4165	0.0817	1.1000e-003	0.0271	1.1000e-003	0.0282	7.8100e-003	1.0500e-003	8.8600e-003		114.6713	114.6713	9.3100e-003		114.9041
Worker	0.0384	0.0250	0.2371	7.1000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		71.0291	71.0291	1.7500e-003		71.0729
Total	**0.0508**	**0.4414**	**0.3188**	**1.8100e-003**	**0.1093**	**1.6300e-003**	**0.1109**	**0.0296**	**1.5400e-003**	**0.0311**		**185.7003**	**185.7003**	**0.0111**		**185.9770**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758		1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6469**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**		**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0691	0.0450	0.4268	1.2800e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		127.8523	127.8523	3.1600e-003		127.9312
Total	**0.0691**	**0.0450**	**0.4268**	**1.2800e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**127.8523**	**127.8523**	**3.1600e-003**		**127.9312**

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758	0.0000	1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6469**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**	**0.0000**	**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0691	0.0450	0.4268	1.2800e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		127.8523	127.8523	3.1600e-003		127.9312
Total	**0.0691**	**0.0450**	**0.4268**	**1.2800e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**127.8523**	**127.8523**	**3.1600e-003**		**127.9312**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.9708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**6.1754**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.6800e-003	5.0000e-003	0.0474	1.4000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		14.2058	14.2058	3.5000e-004		14.2146
Total	**7.6800e-003**	**5.0000e-003**	**0.0474**	**1.4000e-004**	**0.0164**	**1.1000e-004**	**0.0165**	**4.3600e-003**	**1.0000e-004**	**4.4600e-003**		**14.2058**	**14.2058**	**3.5000e-004**		**14.2146**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.9708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**6.1754**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.6800e-003	5.0000e-003	0.0474	1.4000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		14.2058	14.2058	3.5000e-004		14.2146
Total	**7.6800e-003**	**5.0000e-003**	**0.0474**	**1.4000e-004**	**0.0164**	**1.1000e-004**	**0.0165**	**4.3600e-003**	**1.0000e-004**	**4.4600e-003**		**14.2058**	**14.2058**	**3.5000e-004**		**14.2146**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1908	2.1430	1.6204	6.6400e-003	0.3544	5.7900e-003	0.3602	0.0951	5.4600e-003	0.1006		681.1645	681.1645	0.0801		683.1672
Unmitigated	0.1908	2.1430	1.6204	6.6400e-003	0.3544	5.7900e-003	0.3602	0.0951	5.4600e-003	0.1006		681.1645	681.1645	0.0801		683.1672

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Quality Restaurant	132.41	138.90	106.22	153,719	153,719
Total	132.41	138.90	106.22	153,719	153,719

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.511925	0.031902	0.170344	0.119204	0.018408	0.005097	0.021580	0.111258	0.001794	0.001564	0.005229	0.000954	0.000741
Quality Restaurant	0.511925	0.031902	0.170344	0.119204	0.018408	0.005097	0.021580	0.111258	0.001794	0.001564	0.005229	0.000954	0.000741

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.0500e-003	0.0459	0.0386	2.8000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003		55.1318	55.1318	1.0600e-003	1.0100e-003	55.4594
NaturalGas Unmitigated	5.0500e-003	0.0459	0.0386	2.8000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003		55.1318	55.1318	1.0600e-003	1.0100e-003	55.4594

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	468.62	5.0500e-003	0.0459	0.0386	2.8000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003		55.1318	55.1318	1.0600e-003	1.0100e-003	55.4594
Total		**5.0500e-003**	**0.0459**	**0.0386**	**2.8000e-004**		**3.4900e-003**	**3.4900e-003**		**3.4900e-003**	**3.4900e-003**		**55.1318**	**55.1318**	**1.0600e-003**	**1.0100e-003**	**55.4594**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.46862	5.0500e-003	0.0459	0.0386	2.8000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003		55.1318	55.1318	1.0600e-003	1.0100e-003	55.4594
Total		**5.0500e-003**	**0.0459**	**0.0386**	**2.8000e-004**		**3.4900e-003**	**3.4900e-003**		**3.4900e-003**	**3.4900e-003**		**55.1318**	**55.1318**	**1.0600e-003**	**1.0100e-003**	**55.4594**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0479	2.0000e-005	2.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.2500e-003	5.2500e-003	1.0000e-005		5.5900e-003
Unmitigated	0.0479	2.0000e-005	2.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.2500e-003	5.2500e-003	1.0000e-005		5.5900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.1800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0395					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3000e-004	2.0000e-005	2.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.2500e-003	5.2500e-003	1.0000e-005		5.5900e-003
Total	**0.0479**	**2.0000e-005**	**2.4500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**5.2500e-003**	**5.2500e-003**	**1.0000e-005**		**5.5900e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.1800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0395					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3000e-004	2.0000e-005	2.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.2500e-003	5.2500e-003	1.0000e-005		5.5900e-003
Total	**0.0479**	**2.0000e-005**	**2.4500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**5.2500e-003**	**5.2500e-003**	**1.0000e-005**		**5.5900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix D

Noise Review

MD ACOUSTICS
Sound Solutions for Planning and Design

AZ Office
4960 S. Gilbert Road, Ste 1-461
Chandler, AZ 85249
p. (602) 774-1950

CA Office
1197 Los Angeles Avenue, Ste C-256
Simi Valley, CA 93065
p. (805) 426-4477

September 28, 2021

Mr. Steve McMurtry
De Novo Planning Group
1020 Suncast Lane #106
El Dorado, CA 95762

Subject: Snelling Road Event Center – Noise Review – Merced County, CA

Dear Mr. McMurtry:

MD Acoustics, LLC (MD) is pleased to provide this noise review and recommendations report as it relates to proposed operations and events at the Event Center located at 15080 N Snelling Road, Merced County, CA. The project was assessed with regard to potential operations and event noise, such as weddings, and other gatherings. For your reference, Appendix A contains a glossary of acoustical terms.

1.0 Assessment Overview

This assessment evaluates the Project Noise Levels from the event lawn and parking lot and compares the projected noise levels to the County's noise ordinance. Exhibit A on the next page shows the site plan.

2.0 Local Acoustical Requirements

MD compared the results of the noise assessment to Section 10.60.030 of the County of Merced Municipal Code. The County Code prohibits sound that exceeds the background sound level by at least 10 dBA from 7AM to 10PM and 5 dBA from 10PM to 7AM. Noise that exceeds 65 dBA Ldn and 75 dBA Lmax on residential property and 70 dBA Ldn and 80 dBA Lmax on nonresidential property is also prohibited.

3.0 Study Method and Procedure

Existing Noise Condition/Traffic Data

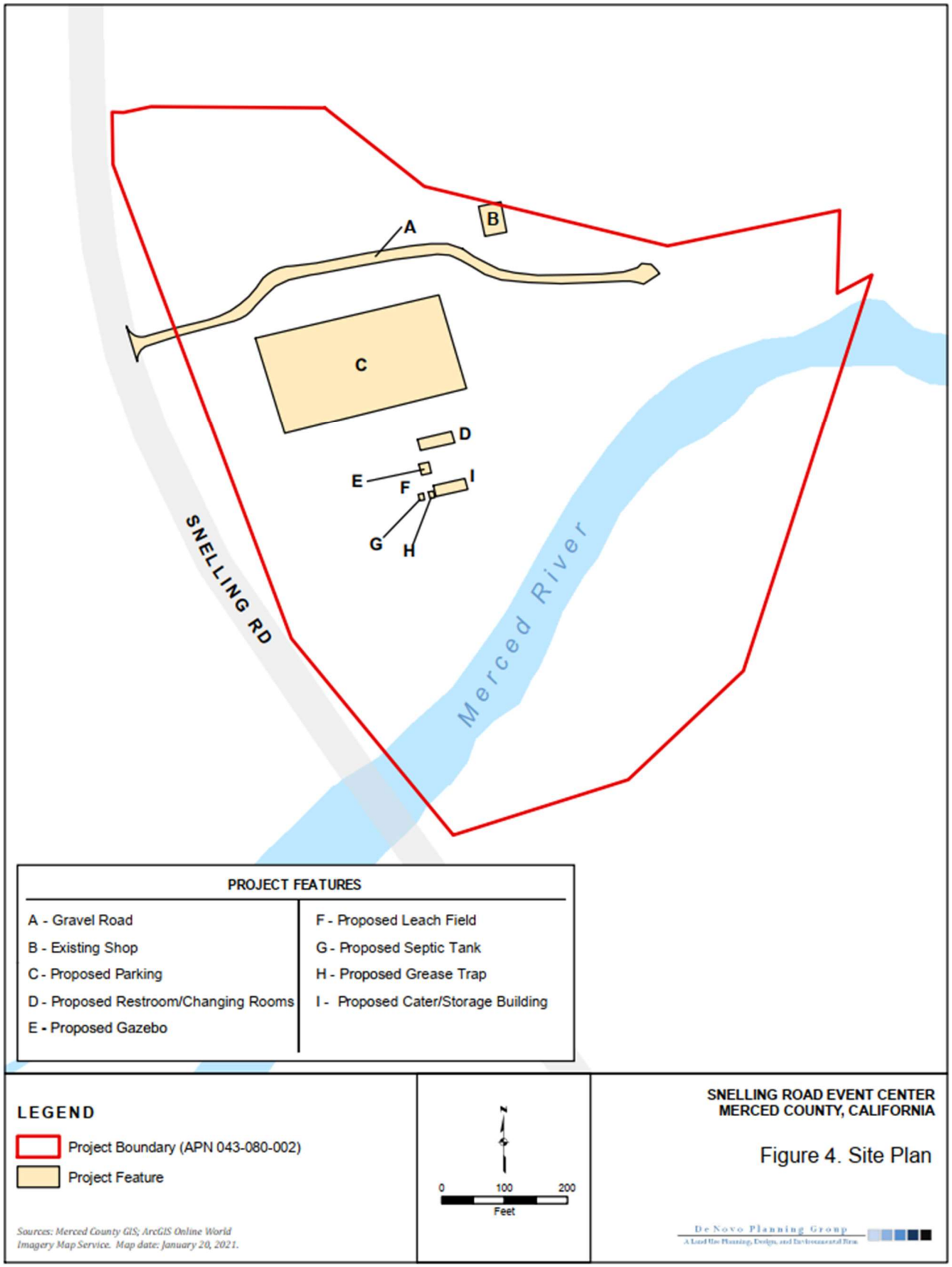
The Merced County General Plan and Caltrans highway counts were used to determine the existing traffic and subsequent existing noise levels. Traffic counts from 2019 indicate that State Route 59 has an ADT of 3900. Traffic projections to 2030 indicate that Snelling Road has an ADT of 2800.

MD utilized the Federal Highway Administration Traffic Noise Model methodology to predict noise levels using these counts. This data is in Appendix B. The overall noise level is expected to be 54 dBA Ldn, 53 dBA Leq during the day and 51 dBA Leq in the evening. Evening levels and Ldn will be used to compare as a worst-case scenario.

Stationary Noise Level Prediction Modeling

SoundPLAN Acoustic Modeling Software (SP) was utilized to model the operational noise levels from the project site. SP acoustical modeling software is capable of evaluating stationary noise sources (e.g., loudspeakers for live events, parking lots, crowds, loading/unloading, patios, etc.) and much more.

Exhibit A: Site Plan



SP's software utilizes algorithms (based on inverse square law) to calculate noise level projections. The software allows the user to input specific noise sources, spectral content, sound barriers, building placement, topography, and sensitive receptor locations. In addition, SP can model the noise sources as point sources, line sources, and area sources. Noise level output data is located in Appendix C.

The future worst-case noise level projections were modeled for a worst-case event with 300 attendees and amplified speech/music and a full parking lot. Table 2 below outlines the referenced noise levels used to calibrate the models.

Table 2: Reference Sound Level Measurements for SoundPLAN Model

Source	Source Type	Reference Level	Distance (ft)
Loud Event (300 people)[1]	Point Source	77 dBA	50
Parking Lot (125 Spaces)	Area Source	1 movement/hour	--

1. See reference level from Bollard Acoustics, (Winery and Farm Brewing Zoning Acoustical Study, 2019), Appendix E. Bollard Acoustics measured 75 dBA for 100 people however doubling or halving the number of people would result in a 3 dBA increase or reduction per logarithmic addition following acoustical principles.

Assumptions

The project was modeled assuming amplified speech/music at a louder event with up to 300 people and a full parking lot with 1 movement per parking spot per hour. The SP model assumes that all noise sources are operating simultaneously (worst-case scenario), when in actuality the noise will be intermittent and lower in noise level.

4.0 Findings and Recommendations

Receptors 1-4 were placed at the property lines based on where noise is projected to be the loudest and receptor 5 is the nearest sensitive receptor.

Project Operational Noise Levels

Appendix C shows the Leq operational Project Noise Levels at the property lines. Operational Project Noise Levels at the adjacent uses are anticipated to range between 37 dBA to 56 dBA Leq (depending on the location), which complies with the County's noise ordinance.

Project Plus Ambient Operational Noise Levels

Table 3 demonstrates the operational Project Noise Levels plus the ambient noise levels which is provided to demonstrate the change in noise level as a result of a large event with amplified speaking or music and parking. Project plus ambient noise level projections are anticipated to range between 55 to 58 dBA Leq at receptors (R1 – R5).

<Table 3, next page >

Table 3: Event Lawn Scenario 1 – Worst-case Predicted Operational Ldn/Leq Noise Level[1]

Receptor[1]	Existing Ambient Noise Level (dBA)[2]		Project Noise Level (dBA)[3]		Total Combined Noise Level (dBA)		County Limit (dBA)		Exceeds Standard Yes/No	Change in Noise Level as Result of Project	
	Ldn	Leq	Ldn	Leq	Ldn	Leq	Ldn	Leq		Ldn	Leq
R1	54	51	51	54	**57**	56	**70**	**+10**	No	+3	**+5**
R2			46	49	**55**	53			No	+1	**+2**
R3			48	51	**56**	54			No	+2	**+3**
R4			53	56	**58**	57			No	+4	**+6**
R5			34	37	**55**	51	**65**	**+10**	No	+1	**+0**

Notes:
[1]. Receptors 1-4, represent the adjacent property lines. Receptor 5 is the nearest residential property to the south.
[2]. See Appendix B for existing noise level calculations
[3]. See Appendix C for the operational noise level projections at said receptors.

As shown in Table 3, the analyzed portion of the project will increase the worst-case noise level by approximately 0 to 5 dBA Leq at receptors (R1 – R5). It should be noted that if the noise does not exceed the County's noise ordinance at the project site's property line, it will not exceed the County's noise ordinance at a further distance. Sound dissipation follows the inverse square law principle which is sound drops off at a 6 dB for every doubling of distance. Therefore, the project will not exceed the County's daytime noise limit of 70 dBA Ldn and +10 dBA Leq at nonresidential properties and 65 dBA Ldn and +10 dBA Leq at residential properties.

5.0 Conclusions

MD is pleased to provide this noise study and recommendations for The Snelling Road Event Center. No sound levels would exceed the County's standard. If you have any questions regarding this analysis or need further review, please call our office at (805) 426-4477.

Sincerely,
MD Acoustics, LLC

Claire Pincock
Acoustical Consultant

Appendix A

Glossary of Acoustical Terms

Glossary of Terms

A-Weighted Sound Level: The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

Ambient Noise Level: The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

C-Weighted Sound Level: The sound pressure level in decibels as measured on a sound level meter using the C-weighted filter network. The C-weighting filter greatly de-emphasizes very high frequency components of the sound and slightly de-emphasizes the very low frequency components. A numerical method of rating human judgment of loudness.

Community Noise Equivalent Level (CNEL): The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five (5) decibels to sound levels in the evening from 7:00 to 10:00 PM and after addition of ten (10) decibels to sound levels in the night before 7:00 AM and after 10:00 PM.

Decibel (dB): A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

dB(A): A-weighted sound level (see definition above).

dB(C): C-weighted sound level (see definition above).

dB(Z): Z-weighted sound level (see definition of dB above).

Equivalent Sound Level (LEQ): The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time varying noise level. The energy average noise level during the sample period.

Habitable Room: Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms and similar spaces.

Human Sensitivity to Sound: In general, the healthy human ear can hear between 20 Hz to 20,000 Hz. Frequencies below 125 Hz are typically associated with low frequencies or bass. Frequencies between 125 Hz and 5,000 Hz are typically associated with mid-range tones. Finally, frequencies between 5,000 and 20,000Hz are typically associated with higher range tones.

The human ear is sensitive to changes in noise levels, depending on the frequency. Generally speaking, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz (A-weighted scale) and perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. At lower and higher frequencies, the ear can become less sensitive depending on a number of factors. Table 1 provides a brief summary of how humans perceive changes in noise levels.

Table 1: Change in Noise Level Characteristics[1]

Changes in Intensity Level, dBA	Changes in Apparent Loudness
1	Not perceptible
3	Just perceptible
5	Clearly noticeable
10	Twice (or half) as loud

https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm

L(n): The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 in the sound level exceeded 10 percent of the sample time. Similarly, L50, L90 and L99, etc.

Noise: *A*ny unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

Percent Noise Levels: See L(n).

Sound Level (Noise Level): The weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum.

Sound Level Meter: An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Single Event Noise Exposure Level (SENEL): The dB(A) level which, if it lasted for one second, would produce the same A-weighted sound energy as the actual event.

Appendix B

Traffic Data/Calcs

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

PROJECT: Merced Snelling
ROADWAY: SR 59
LOCATION: Parking Lot

JOB #: 0462-2020-14
DATE: 20-Apr-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	3,900
SPEED =	55
PK HR % =	11%
NEAR LANE/FAR LANE DIS	12
ROAD ELEVATION =	0.0
GRADE =	1.0 %
PK HR VOL =	430

RECEIVER INPUT DATA

RECEIVER DISTANCE =		3,000
DIST C/L TO WALL =		140
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER		2,860
PAD ELEVATION =		0.5
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	15	
MEDIUM TRUCKS =	15	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	15	

WALL INFORMATION

HTH WALL	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.8695
MEDIUM TRUCK	0.848	0.049	0.103	0.0053
HEAVY TRUCKS	0.865	0.027	0.108	0.1252

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	3000.00	- -
MEDIUM TRUCKS	4.0	2999.99	- -
HEAVY TRUCKS	8.0	3000.00	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	37.8	35.4	33.7	27.6	36.2	36.9
MEDIUM TRUCKS	22.7	20.8	14.5	12.9	21.4	21.6
HEAVY TRUCKS	40.4	38.6	29.6	30.8	39.2	39.3
NOISE LEVELS (dBA)	42.4	40.4	35.1	32.6	41.0	41.3

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	37.8	35.4	33.7	27.6	36.2	36.9
MEDIUM TRUCKS	22.7	20.8	14.5	12.9	21.4	21.6
HEAVY TRUCKS	40.4	38.6	29.6	30.8	39.2	39.3
NOISE LEVELS (dBA)	42.4	40.4	35.1	32.6	41.0	41.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	37	79	170	366
LDN	35	75	162	350

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

PROJECT: Merced Snelling
ROADWAY: Snelling Rd
LOCATION: Parking Lot

JOB #: 0462-2020-14
DATE: 20-Apr-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	2,800
SPEED =	55
PK HR % =	10%
NEAR LANE/FAR LANE DIS	15
ROAD ELEVATION =	0.0
GRADE =	1.0 %
PK HR VOL =	280

RECEIVER INPUT DATA

RECEIVER DISTANCE =		200
DIST C/L TO WALL =		140
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER		60
PAD ELEVATION =		0.5
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	15	
MEDIUM TRUCKS =	15	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	15	

WALL INFORMATION

HTH WALL	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.9742
MEDIUM TRUCK	0.848	0.049	0.103	0.0184
HEAVY TRUCKS	0.865	0.027	0.108	0.0074

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	199.89	- -
MEDIUM TRUCKS	4.0	199.86	- -
HEAVY TRUCKS	8.0	199.88	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

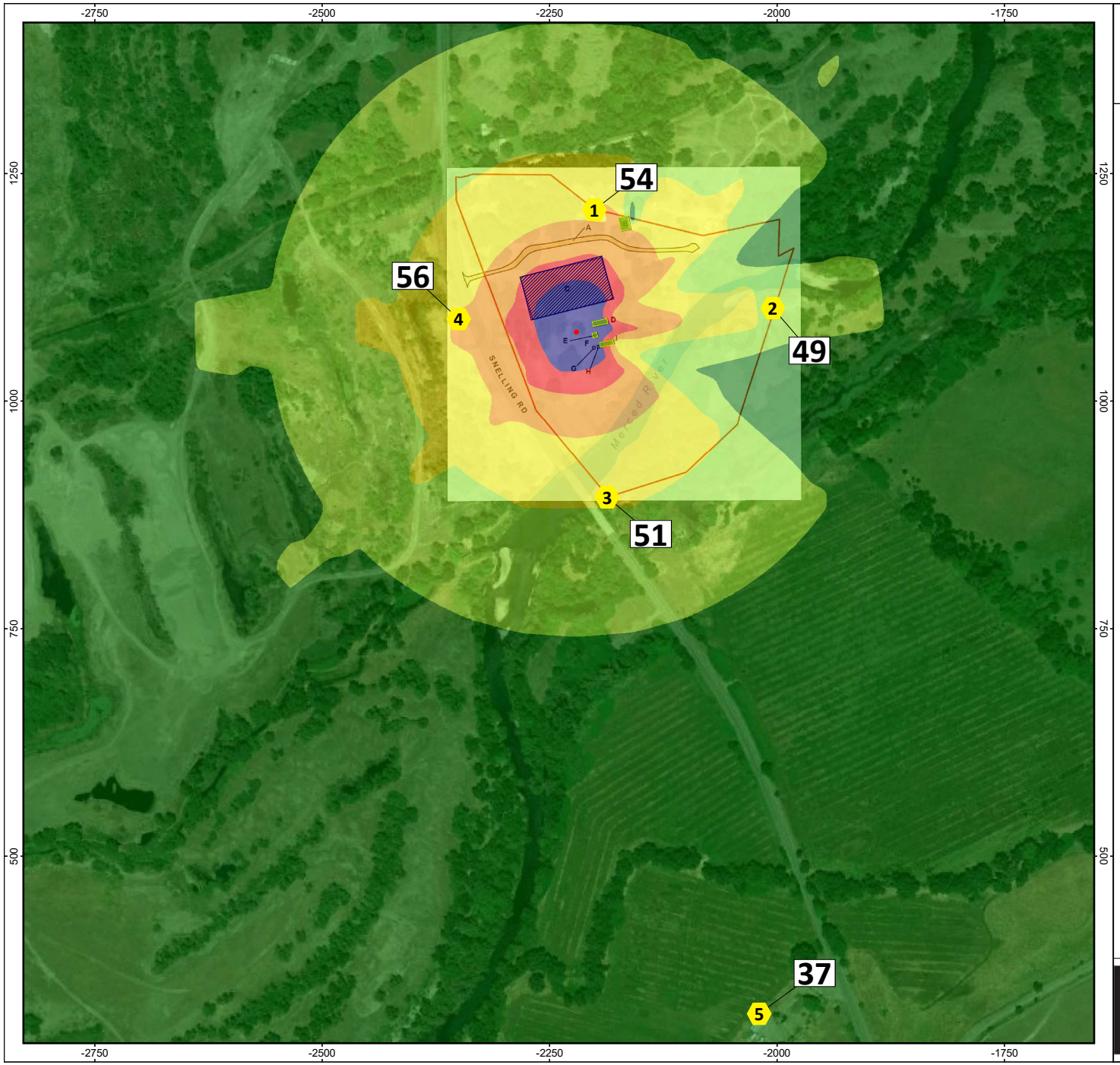
VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	54.0	52.1	50.4	44.3	52.9	53.6
MEDIUM TRUCKS	43.9	42.4	36.1	34.5	43.0	43.2
HEAVY TRUCKS	43.9	42.5	33.5	34.7	43.1	43.2
NOISE LEVELS (dBA)	54.8	53.0	50.6	45.2	53.8	54.3

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	54.0	52.1	50.4	44.3	52.9	53.6
MEDIUM TRUCKS	43.9	42.4	36.1	34.5	43.0	43.2
HEAVY TRUCKS	43.9	42.5	33.5	34.7	43.1	43.2
NOISE LEVELS (dBA)	54.8	53.0	50.6	45.2	53.8	54.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	18	39	83	179
LDN	17	36	77	165

Appendix C
Operational Worst Case
Noise Level and Contours



04622014_Merced
Noise Level Contours

Levels in dB(A)

<	45
45 -	50
50 -	55
55 -	60
60 -	65
>=	65

Signs and symbols

- Level table, dBA
- Point Receiver
- Point Source (Audience: 300 People)
- Buildings
- Parking (125 Spaces)

Length scale 1:350

0 200 400 800 1200 feet

MD ACOUSTICS
Sound Solutions for Planning and Design

Ldn Calculation R1

Time	Existing	Project	Project Plus Existing	Energy E	P	E+P	Ldn E+P
0:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
1:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
2:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
3:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
4:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
5:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
6:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
7:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
8:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
9:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
10:00	53.2	54.0	56.6	210491.013	251188.643	461679.657	461679.657
11:00	53.2	54.0	56.6	210491.013	251188.643	461679.657	461679.657
12:00	53.2	54.0	56.6	210491.013	251188.643	461679.657	461679.657
13:00	53.2	54.0	56.6	210491.013	251188.643	461679.657	461679.657
14:00	53.2	54.0	56.6	210491.013	251188.643	461679.657	461679.657
15:00	53.2	54.0	56.6	210491.013	251188.643	461679.657	461679.657
16:00	53.2	54.0	56.6	210491.013	251188.643	461679.657	461679.657
17:00	53.2	54.0	56.6	210491.013	251188.643	461679.657	461679.657
18:00	53.2	54.0	56.6	210491.013	251188.643	461679.657	461679.657
19:00	50.7	54.0	55.7	118051.299	251188.643	369239.942	1167639.22
20:00	50.7	54.0	55.7	118051.299	251188.643	369239.942	1167639.22
21:00	50.7	54.0	55.7	118051.299	251188.643	369239.942	1167639.22
22:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
23:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
				6023999.23	3014275.72		11433553.8
Ldn	54.0	51.0	56.8				

53.2
50.7
45.4

Ldn Calculation R2

Time	Existing	Project	Project Plus Existing	Energy E	P	E+P	Ldn E+P
0:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
1:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
2:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
3:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
4:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
5:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
6:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
7:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
8:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
9:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
10:00	53.2	49.2	54.7	210491.013	83176.3771	293667.391	293667.391
11:00	53.2	49.2	54.7	210491.013	83176.3771	293667.391	293667.391
12:00	53.2	49.2	54.7	210491.013	83176.3771	293667.391	293667.391
13:00	53.2	49.2	54.7	210491.013	83176.3771	293667.391	293667.391
14:00	53.2	49.2	54.7	210491.013	83176.3771	293667.391	293667.391
15:00	53.2	49.2	54.7	210491.013	83176.3771	293667.391	293667.391
16:00	53.2	49.2	54.7	210491.013	83176.3771	293667.391	293667.391
17:00	53.2	49.2	54.7	210491.013	83176.3771	293667.391	293667.391
18:00	53.2	49.2	54.7	210491.013	83176.3771	293667.391	293667.391
19:00	50.7	49.2	53.0	118051.299	83176.3771	201227.676	636337.784
20:00	50.7	49.2	53.0	118051.299	83176.3771	201227.676	636337.784
21:00	50.7	49.2	53.0	118051.299	83176.3771	201227.676	636337.784
22:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
23:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
				6023999.23	998128.525		8327539.08
Ldn	54.0	46.2	55.4				

53.2
50.7
45.4

Ldn Calculation R3

Time	Existing	Project	Project Plus Existing	Energy E	P	E+P	Ldn E+P
0:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
1:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
2:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
3:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
4:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
5:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
6:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
7:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
8:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
9:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
10:00	53.2	50.6	55.1	210491.013	114815.362	325306.376	325306.376
11:00	53.2	50.6	55.1	210491.013	114815.362	325306.376	325306.376
12:00	53.2	50.6	55.1	210491.013	114815.362	325306.376	325306.376
13:00	53.2	50.6	55.1	210491.013	114815.362	325306.376	325306.376
14:00	53.2	50.6	55.1	210491.013	114815.362	325306.376	325306.376
15:00	53.2	50.6	55.1	210491.013	114815.362	325306.376	325306.376
16:00	53.2	50.6	55.1	210491.013	114815.362	325306.376	325306.376
17:00	53.2	50.6	55.1	210491.013	114815.362	325306.376	325306.376
18:00	53.2	50.6	55.1	210491.013	114815.362	325306.376	325306.376
19:00	50.7	50.6	53.7	118051.299	114815.362	232866.661	736389.039
20:00	50.7	50.6	53.7	118051.299	114815.362	232866.661	736389.039
21:00	50.7	50.6	53.7	118051.299	114815.362	232866.661	736389.039
22:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
23:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
				6023999.23	1377796.35		8912443.71
Ldn	54.0	47.6	55.7				

53.2
50.7
45.4

Ldn Calculation R4

Time	Existing	Project	Project Plus Existing	Energy E	P	E+P	Ldn E+P
0:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
1:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
2:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
3:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
4:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
5:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
6:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
7:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
8:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
9:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
10:00	53.2	55.6	57.6	210491.013	363078.055	573569.068	573569.068
11:00	53.2	55.6	57.6	210491.013	363078.055	573569.068	573569.068
12:00	53.2	55.6	57.6	210491.013	363078.055	573569.068	573569.068
13:00	53.2	55.6	57.6	210491.013	363078.055	573569.068	573569.068
14:00	53.2	55.6	57.6	210491.013	363078.055	573569.068	573569.068
15:00	53.2	55.6	57.6	210491.013	363078.055	573569.068	573569.068
16:00	53.2	55.6	57.6	210491.013	363078.055	573569.068	573569.068
17:00	53.2	55.6	57.6	210491.013	363078.055	573569.068	573569.068
18:00	53.2	55.6	57.6	210491.013	363078.055	573569.068	573569.068
19:00	50.7	55.6	56.8	118051.299	363078.055	481129.353	1521464.61
20:00	50.7	55.6	56.8	118051.299	363078.055	481129.353	1521464.61
21:00	50.7	55.6	56.8	118051.299	363078.055	481129.353	1521464.61
22:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
23:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
				6023999.23	4356948.66		13502034.6
Ldn	54.0	52.6	57.5				

53.2
50.7
45.4

Ldn Calculation R5

Time	Existing	Project	Project Plus Existing	Energy E	P	E+P	Ldn E+P
0:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
1:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
2:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
3:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
4:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
5:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
6:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
7:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
8:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
9:00	53.2	0.0	53.2	210491.013	1	210492.013	210492.013
10:00	53.2	36.7	53.3	210491.013	4677.35141	215168.365	215168.365
11:00	53.2	36.7	53.3	210491.013	4677.35141	215168.365	215168.365
12:00	53.2	36.7	53.3	210491.013	4677.35141	215168.365	215168.365
13:00	53.2	36.7	53.3	210491.013	4677.35141	215168.365	215168.365
14:00	53.2	36.7	53.3	210491.013	4677.35141	215168.365	215168.365
15:00	53.2	36.7	53.3	210491.013	4677.35141	215168.365	215168.365
16:00	53.2	36.7	53.3	210491.013	4677.35141	215168.365	215168.365
17:00	53.2	36.7	53.3	210491.013	4677.35141	215168.365	215168.365
18:00	53.2	36.7	53.3	210491.013	4677.35141	215168.365	215168.365
19:00	50.7	36.7	50.9	118051.299	4677.35141	122728.65	388102.069
20:00	50.7	36.7	50.9	118051.299	4677.35141	122728.65	388102.069
21:00	50.7	36.7	50.9	118051.299	4677.35141	122728.65	388102.069
22:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
23:00	45.4	0.0	45.4	349328.13	1	34933.813	349338.13
				6023999.23	56140.217		6876340.7
Ldn	54.0	33.7	54.6				

53.2
50.7
45.4

Appendix D
SoundPLAN Modeling
Input/Output

Merced
Contribution level - Situation 1: Outdoor SP

Source	Source group	Source ty	Tr. lane	Leq,d dB(A)	A dB	
Receiver Receiver 1 Fl G dB(A) Leq,d 54.0 dB(A)						
Audience: 300 People	Default industrial noise	Point		53.3	0.0	
Parking: 125 Spaces	Default parking lot noise	PLot		45.8	0.0	
Receiver Receiver 2 Fl G dB(A) Leq,d 49.2 dB(A)						
Audience: 300 People	Default industrial noise	Point		48.9	0.0	
Parking: 125 Spaces	Default parking lot noise	PLot		36.7	0.0	
Receiver Receiver 3 Fl G dB(A) Leq,d 50.6 dB(A)						
Audience: 300 People	Default industrial noise	Point		50.5	0.0	
Parking: 125 Spaces	Default parking lot noise	PLot		35.3	0.0	
Receiver Receiver 4 Fl G dB(A) Leq,d 55.6 dB(A)						
Audience: 300 People	Default industrial noise	Point		55.4	0.0	
Parking: 125 Spaces	Default parking lot noise	PLot		42.8	0.0	
Receiver Receiver 5 Fl G dB(A) Leq,d 36.7 dB(A)						
Audience: 300 People	Default industrial noise	Point		36.6	0.0	
Parking: 125 Spaces	Default parking lot noise	PLot		21.4	0.0	

Merced
Octave spectra of the sources in dB(A) - Situation 1: Outdoor SP

Name	Source type	l or A	Li	R'w	L'w	Lw	KI	KT	LwMax	DO-Wall	Time histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Audience: 300 People	Point				108.6	108.6	0.0	0.0		0	100%/24h					108.6					
Parking: 125 Spaces	PLot	4514.17			59.1	95.6	0.0	0.0		0	1/h	Typical spectrum	79.0	90.6	83.1	87.6	87.7	88.1	85.4	79.2	66.4

Appendix E
Reference Data

Event Noise Methodology

Typical sound levels for a range of activities comparable to what might occur at Special Events of sizes similar to those allowed by the proposed Zoning Text Amendment are shown below in Table 9-10. Such data includes a combination of noise measurement results conducted by Bollard Acoustical Consultants, Inc. in recent years, as well as published sound level data for persons conversing at various levels.[6]

Table 9-10
Typical Sound Levels for Special Events

Event or Activity	Typical Noise Level at 50 feet (dBA L_{eq})
Amplified speech/music at louder event (i.e. 200 person wedding reception)	75
Amplified speech/music at smaller event (i.e. 100 person reception)	72
Amplified speech only (no amplified music)	65
Non-amplified music (i.e. acoustic ensemble)	60
Non-amplified music (single acoustic guitar)	56
Raised conversations (100 people)	60
Raised conversations (50 people)	57

Source: Bollard Acoustical Consultants, Inc., 2019.

Noise levels generated during special events occurring at three existing Placer County wineries were monitored in September and October of 2017, and March of 2018. Although the numbers of attendees at the events varied throughout the course of each event, event attendance reportedly exceeded 50 people and amplified music was present during each of the events. The measured average noise level during the events was 55 dB L_{eq} at the reference measurement distance of 200 feet from the approximate acoustic center of the event areas. Measured instantaneous maximum noise levels during the same events were 10 to 15 dB higher than the measured average noise levels, but the distances to the source of the maximum noise levels is more uncertain because the location of instantaneous maximum noise level sources cannot be exactly pinpointed.

The measured special event noise levels, which were all within compliance with the County Noise Ordinance standards at the nearest noise-sensitive property lines, correspond to approximately 67 dB L_{eq} at a reference distance of 50 feet. The test results indicate that the measured special event noise levels were approximately 5 to 8 dB lower than the reference sound levels shown in Table 9-10 for amplified music. This difference may have been caused in part by additional sound absorption by intervening vineyards or variations in amplifier settings. To provide reasonably conservative estimates of the potential noise generation of special events, the reference noise level data contained in Table 9-10 was applied to this analysis.

Sound radiating away from a fixed location decreases at a rate of approximately 6 dB for each doubling of distance from the noise source. Thus, for a sound source (i.e. amplified music), that generates a median noise level of 75 dB at a distance of 50 feet from the speakers, the sound level at a distance of 100 feet from that same source would be 6 dB lower, or 69 dB. At a distance of

[6] Harris, Cyril M. *Handbook of Acoustical Measurements and Noise Control*. 1998.

200 feet from the speakers (a doubling of distance from the 100-foot location), the expected sound level would be 12 dB lower, or approximately 63 dB. This 6 dB per doubling of distance attenuation rate assumes a direct line of sight between the noise source and receiver (i.e. no shielding by intervening buildings, topography, or vegetation), and does not include further decreases in sound which occur over distance with atmospheric absorption of sound. The 6 dB per doubling of distance attenuation rate was used to provide a conservative estimate of the distances to the critical noise contours for the various types of sound sources identified in Table 9-10. In addition, an offset of -1.5 dB per thousand feet from the noise sources is required to account for atmospheric absorption.

According to the ambient noise level data contained in Table 9-4, daytime average ambient conditions in the rural areas of Placer County averaged approximately 50 dB L_{eq}. Thus, satisfaction with the County's 55 dB L_{eq} Noise Ordinance daytime threshold, and 50 dB L_{eq} daytime threshold for events within the Auburn/Bowman Community Plan area, would ensure that the noise level increase associated with winery and farm brewery events would be approximately 5 dB or less, which is consistent with the Noise Ordinance threshold. However, because the noise source in question consists of speech and/or music, a -5 dB penalty is applied to the County noise standard. As a result, the critical daytime noise threshold for speech or music generated during events would be 50 dB L_{eq} during daytime hours (45 dB L_{eq} for the Auburn/Bowman Community Plan area).

During evening hours (7:00 PM to 10:00 PM), average measured ambient conditions were approximately 45 dB L_{eq}. After upward adjustment by 5 dB for the allowable increase and downward adjustment by 5 dB because the noise source consists of speech or music, this analysis concludes that the appropriate evening sound level threshold for special events would be 45 dB L_{eq} at nearby sensitive areas, including uses within the Auburn/Bowman Community Plan area. The 5 dB threshold is identified as the limit for non-transportation noise level increases in the Section 9.36.060.A.1 of the Placer County Code. The distances to the 45 and 50 dB L_{eq} noise contours are identified in Table 9-11 below.

Table 9-11
Distances Required to Attenuate Event Noise

Event/Activity	Distance to Contour (feet)	
	50 dB L_{eq}	**45 dB L_{eq}**
Amplified speech/music at louder event (i.e. wedding reception)	750	1,225
Amplified speech/music at quieter event (i.e. wine industry dinner)	550	925
Amplified speech only (no amplified music)	275	450
Non-amplified music (i.e. acoustic ensemble)	150	275
Non-amplified music (single acoustic guitar)	100	175
Raised conversations (100 people)	150	275
Raised conversations (50 people)	125	200

Note: The distances presented above do not include any additional attenuation which would result from shielding by intervening topography, structures, or vegetation.

Source: Bollard Acoustical Consultants, Inc., 2019.