INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

FOR THE

INDELICATO PROPERTY SUBDIVISION PROJECT

(SCH NO. 2023040168)

MAY 17, 2023

Prepared for:

City of Manteca – City Hall
1001 West Center Street
Manteca, CA 95337
(209) 456-8000

Prepared by:

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

D e N o v o P l a n n i n g G r o u p

A Land Use Planning, Design, and Environmental Firm

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Proposed Indelicato Property Subdivision Project

Lead Agency:
City of Manteca
1001 West Center Street
Manteca, CA 95337

Project Title: Indelicato Property Subdivision Project

Project Location: The Project site includes approximately 40 acres located in the northern portion of the City of Manteca, east of Airport Way, in San Joaquin, California. The Project site is identified as Assessor's Parcel Number (APN) 204-100-520, by the San Joaquin County Assessor's Office. The Project site is bound by Airport Way to the west, a single-family residential neighborhood to the south and east, and agricultural land to the north.

The Project site is generally flat and has historically been farmed for both orchard (Almonds) or row crop. Currently the western half of the Project site is orchard, while the eastern half is row crop. There are a variety of irrigation facilities on the Project site that support the agricultural operation, as well as minor agricultural ditches.

There are no structures on the Project site, but there are overhead power lines located on the western side of the Project site along Airport Way.

Project Description: The proposed Project includes the annexation of 40 acres of land into the City of Manteca for the subdivision and development of 173 residential units, construction of a 3.03-acre Park/Basin (Lot A), and installation of frontage/entry landscaping.

The residential density is approximately 4.3 units/acre, with typical lot sizes of 50 feet by 100 feet or 5,000 square feet (81 lots), and 60 feet by 100 feet (92 lots). Each lot would contain a two-car garage and two driveway parking spaces. All facilities would be removed, including wells, irrigation facilities, and electric lines, per City of Manteca standards and specifications.

Residences would back on Airport Way, consistent with the existing residential orientation along the street. Access to the subdivision will occur from two locations on the west site of the subdivision along Airport Way. The internal circulation design includes roadway stubs to access the property to the north in accordance with the City's requirements.

The annexation will include detachment from the Lathrop Manteca Fire District.

Findings:
In accordance with the California Environmental Quality Act, the City of Manteca 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 City of Manteca staff. On the basis of the Initial Study, the City of Manteca 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 City 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.

AGRICULTURE AND FORESTRY RESOURCES

Mitigation Measure AG-1*:* Prior to the conversion of important farmland on the Project site, the Project applicant shall participate in the City's agricultural mitigation fee program and the SJMSCP by paying the established fees on a per-acre basis for the loss of important farmland. Fees paid toward the City's program shall be used to fund conservation easements on comparable or better agricultural lands to provide compensatory mitigation.

BIOLOGICAL RESOURCES

Mitigation Measure BIO-1*:* Prior to commencement of any grading activities, the Project proponent shall seek coverage under the SJMSCP to mitigate for habitat impacts to covered special status species. Coverage involves compensation for habitat impacts on covered species through implementation of incidental take and minimization Measures (ITMMs) and payment of fees for conversion of lands that may provide habitat for covered special status species. These fees are used to preserve and/or create habitat in preserves to be managed in perpetuity. Obtaining coverage for a Project includes incidental take authorization (permits) under the Endangered Species Act Section 10(a), California Fish and Game Code Section 2081, and the MBTA. Coverage under the SJMSCP would fully mitigate all habitat impacts on covered special-status species.

CULTURAL RESOURCES

Mitigation Measure CUL-1: The Project applicant shall ensure that a training session for all workers is conducted in advance of the initiation of construction activities at the site. The training session will provide information on recognition of artifacts, human remains, and cultural deposits to help in the recognition of potential issues.

Mitigation Measure CUL-2: The Project applicant shall retain a qualified archaeologist to observe initial ground disturbance activities, during initial grading. If artifacts, exotic rock, shell or bone are uncovered during the construction, the archaeologist will be able to document the finding, and determine if additional work is necessary to excavate or remove the artifacts or feature.

Mitigation Measure CUL-3: If cultural resources (i.e., prehistoric sites, historic sites, isolated artifacts/features, and paleontological sites) are discovered during construction, work shall be halted immediately within 50 meters (165 feet) of the discovery, the City of Manteca shall be notified, and a qualified archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology (or a qualified paleontologist in the event paleontological resources are found) shall be retained to determine the significance of the discovery. The City of Manteca shall consider recommendations presented by the professional for any unanticipated discoveries and shall carry out the measures deemed feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. Specific measures are developed based on the significance of the find.

Mitigation Measure CUL-4: If any human remains are found during grading and construction activities, all work shall be halted immediately within 50 meters (165 feet) of the discovery and 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 shall notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed. Additionally, if the Native American resources are identified, a Native American monitor, following the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites established by the Native American Heritage Commission, may also be required and, if required, shall be retained at the applicant's expense.

GEOLOGY AND SOILS

Mitigation Measure GEO-1: Prior to issuance of any building permits, the Project applicant shall be required to submit building plans to the City of Manteca for review and approval. The building plans shall also comply with all applicable requirements of the most recent California Building Standards Code. All on-site soil engineering activities shall be conducted under the supervision of a licensed geotechnical engineer or certified engineering geologist.

Mitigation Measure GEO-2: The Project applicant shall submit a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) to the RWQCB in accordance with the NPDES General Construction Permit requirements. The SWPPP shall be designed to control pollutant discharges utilizing Best Management Practices (BMPs) and technology to reduce erosion and sediments. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater runoff from the Project site. Measures shall include temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) that will be employed to control erosion from disturbed areas. Final selection of BMPs will be subject to approval by the City of Manteca and the RWQCB. The SWPPP will be kept on site during construction activity and will be made available upon request to representatives of the RWQCB.

HAZARDS AND HAZARDOUS MATERIALS

Mitigation Measure HAZ-1: The Project applicant shall hire a qualified consultant to perform soil and site testing to check whether hazardous conditions are present, prior to any grading activities. The soil sampling shall address the presence/absence of hazardous substances in the soils, including agrichemicals and/or petroleum products. A soil sampling and analysis workplan shall be shall be prepared and meet the requirements of the Department of Toxic Substances Control Interim Guidance for Sampling Agricultural Properties (2008). The soils in the area where farming equipment and/or tanks have been stored should be included in the soil sampling and analysis workplan.

If the sampling results indicate the presence of agrichemicals that exceed commercial screening levels, a removal action workplan shall be prepared in coordination with San Joaquin County Environmental Health Department. The removal action workplan shall include a detailed engineering plan for conducting the removal action, a description of the on-site contamination, the goals to be achieved by the removal action, and any alternative removal options that were considered and rejected and the basis for that rejection. A no further action letter shall be issued by San Joaquin County Environmental Health Department upon completion of the removal action. The removal action shall be deemed complete when the confirmation samples exhibit concentrations below the commercial screening levels, which will be established by the agencies.

If asbestos-containing materials and/or lead are found in the buildings, a California Occupational Safety and Health Administration (Cal/OSHA) certified asbestos containing building materials (ACBM) and lead based paint contractor shall be retained to remove the asbestos-containing materials and lead in accordance with EPA and Cal/OSHA standards. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with Cal/OSHA asbestos and lead worker construction standards. The ACBM and lead shall be disposed of properly at an appropriate offsite disposal facility.

Mitigation Measure HAZ-2 Prior to initiation of any ground disturbance activities within 50 feet of a well, the Project applicant shall hire a licensed well contractor to obtain a well abandonment permit from San Joaquin County Environmental Health Department, and properly abandon the on-site wells, pursuant to review and approval of the City Engineer and the San Joaquin County Environmental Health Department.

NOISE

Mitigation Measure NOISE-1: Construction activities shall adhere to the requirements of the City of Manteca Municipal Code with respect to hours of operation. This requirement shall be noted in the improvements plans prior to approval by the City's Public Works Department.

All equipment shall be fitted with factory equipped mufflers, and in good working order. This requirement shall be noted in the improvements plans prior to approval by the City's Public Works Department.

Mitigation Measure NOISE-2: A 10-foot-tall barrier shall be constructed along the Airport Way frontage, adjacent to proposed Project residential uses, in order to achieve the City's exterior noise standards. Noise barrier walls shall be constructed of concrete panels, concrete masonry units, earthen berms, or any combination of these materials that achieve the required total height. Wood is not recommended due to eventual warping and degradation of acoustical performance. These requirements shall be included in the improvements plans prior to their approval by the City's Public Works Department. Figure 3.11-3 in the Noise Study shows the recommended sound wall locations.

Mitigation Measure NOISE-3: For the first rows of lots adjacent to the Airport Way right of way, second floor exterior facades with a view of Airport Way would need the following noise control measures:

- Windows shall have a sound transmission class (STC) rating of 38.

- Interior gypsum at exterior walls shall be 5/8" hung on resilient channels;
- Ceiling gypsum shall be 5/8";
- Exterior finish shall be stucco, fiber cement lap siding, or system with equivalent weight per square foot;
- Mechanical ventilation shall be installed in all residential uses to allow residents to keep doors and windows closed, as desired for acoustical isolation.
- As an alternative to the above-listed interior noise control measures, the applicant may provide a detailed analysis of interior noise control measures once building plans become available. The analysis should be prepared by a qualified noise control engineer and shall outline the specific measures required to meet the City of Manteca 45 dB Ldn interior noise level standard.

Mitigation Measure NOISE-4: Any compaction required less than 26 feet from the adjacent residential structures shall be accomplished by using static drum rollers which use weight instead of vibrations to achieve soil compaction. As an alternative to this requirement, pre-construction crack documentation and construction vibration monitoring could be conducted to ensure that construction vibrations do not cause damage to any adjacent structures.

PUBLIC SERVICES

Mitigation Measure PUBLIC-1: The Project applicant shall pay applicable park in-lieu fees or dedicate parkland in accordance with the City of Manteca Municipal Code standards outlined in Chapter 3.20. Proof of payment of the in-lieu fees shall be submitted to the City Engineer.

UTILITIES

Mitigation Measure UTIL-1: Prior to the issuance of a building or grading permit, the Project applicant shall submit a drainage plan to the City of Manteca for review and approval. The plan shall include an engineered storm drainage plan that demonstrates attainment of pre-Project runoff requirements prior to release at the outlet canal and describes the volume reduction measures and treatment controls used to reach attainment consistent with the Manteca Storm Drain Master Plan.

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INITIAL STUDY CHECKLIST

PROJECT TITLE

Indelicato Property Subdivision Project

LEAD AGENCY NAME AND ADDRESS

City of Manteca – City Hall
1001 West Center Street
Manteca, CA 95337
(209) 456-8000

CONTACT PERSON AND PHONE NUMBER

Doug Ledebour
KDH Group, LLC
3200 Danville Blvd, Ste 200
Alamo, CA 94507
(925) 648-8888

PROJECT LOCATION AND SETTING

The Project site includes approximately 40 acres located in the northern portion of the City of Manteca, east of Airport Way, in San Joaquin, California. The Project site is identified as Assessor's Parcel Number (APN) 204-100-520, by the San Joaquin County Assessor's Office. The Project site is bound by Airport Way to the west, a single-family residential neighborhood to the south and east, and agricultural land to the north.

The Project site is generally flat and has historically been farmed for both orchard (Almonds) or row crop. Currently the western half of the Project site is orchard, while the eastern half is row crop. There are a variety of irrigation facilities on the Project site that support the agricultural operation, as well as minor agricultural ditches.

There are no structures on the Project site, but there are overhead power lines located on the western side of the Project site along Airport Way.

See Figures 1 and 2 for the regional location and the project vicinity.

PROJECT DESCRIPTION

The proposed Project includes the annexation of 40 acres of land into the City of Manteca for the subdivision and development of 173 residential units, construction of a 3.03-acre Park/Basin (Lot A), and installation of frontage/entry landscaping.

The residential density is approximately 4.3 units/acre, with typical lot sizes of 50 feet by 100 feet or 5,000 square feet (81 lots), and 60 feet by 100 feet (92 lots). Each lot would contain a two-car garage and two driveway parking spaces. All facilities would be removed, including wells, irrigation facilities, and electric lines, per City of Manteca standards and specifications.

Residences would back on Airport Way, consistent with the existing residential orientation along the street. Access to the subdivision will occur from two locations on the west site of the

subdivision along Airport Way. The internal circulation design includes roadway stubs to access the property to the north in accordance with the City's requirements.

The annexation will include detachment from the Lathrop Manteca Fire District.

Figure 3 contains the tentative subdivision map.

GENERAL PLAN AND ZONING DESIGNATIONS

The project site is designated LDR (Low Density Residential) by the Manteca General Plan land use map. The City's LDR land use establishes a mix of dwelling unit types and character determined by the individual site and market conditions. The density range allows substantial flexibility in selecting dwelling unit types and parcel configurations to suit particular site conditions and housing needs. The type of dwelling units anticipated in this density range include small lots and clustered lots as well as conventional large lot detached residences. The allowed density within the City's LDR designation is 2.1 to 8 dwelling units per acre. With 173 units on approximately 40 acres, the proposed density would be 4.3 dwelling units per acre, which is within the allowed density range.

It is noted that there is also a small silver of Public Quasi Public (PQP) land use designated along the northern boundary of the Project site. This sliver is part of a square shaped site that was designated for a potential school during the previous General Plan Update in 2008. The extension of this square PQP land use into the Project site did not recognize the parcel line. Project Applicant has consulted with the Manteca Unified School District, and they have stated that the sliver of PQP land on the Project site "would not be the preferred location" for a school. Additionally, the General Plan Update, while not yet approved, has removed this PQP land use from this location due to the School District not showing interest in building a school in this location. Because the General Plan Update is not yet approved with the change of land use from PQP to LDR, it is necessary to process a General Plan Amendment that would change the land use on the entire Project site to LDR. MUSD has confirmed that they "do not have an issue" with Project applicant proceeding with a General Plan Amendment. Figure 4 illustrates the existing General Plan land uses.

The San Joaquin County Local Agency Formation Commission (LAFCo) will require the project site to be pre-zoned by the City of Manteca in conjunction with the proposed annexation. The City's pre-zoning for the entire site will be R-1 (One Family Dwelling), which is consistent with the LDR (Low Density Residential) land use designation of the Manteca General Plan. This zoning district allows for substantial flexibility in selecting dwelling unit types and parcel configurations to suit site conditions and housing needs. Figure 5 illustrates the Prezone Map.

The proposed Project would require a prezoning of the land, which would go into effect upon annexation of the land. It is also likely that a Development Agreement will be entered prior to project approval.

REQUESTED ENTITLEMENTS AND OTHER APPROVALS

The City of Manteca is the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of CEQA, Section 15050.

This document will be used by the City of Manteca to take the following actions:

- Adoption of the Mitigated Negative Declaration (MND);
- Adoption of the Mitigation Monitoring and Reporting Program;

- Approval of City of Manteca pre-zoning;
- Approval of General Plan Amendment;
- Approval of Development Agreement;
- Approval of Tentative Maps;
- Approval of Annexation of the Development Area and Authorization to submit Annexation request to San Joaquin LAFCo;
- Approval of future Final Maps;
- Approval of future Improvement Plans;
- Approval of future Grading Plans;
- Approval of future Site Plan and Design Review;
- City review, approval, of construction and utility plans;
- Approval of future Building Permits; and
- Approval of future Conditional Use Permits.

The following agencies may be required to issue permits or approve certain aspects of the proposed project:

- Central Valley Regional Water Quality Control Board (CVRWQCB) - Storm Water Pollution Prevention Plan (SWPPP) approval prior to construction activities pursuant to the Clean Water Act;
- San Joaquin Valley Air Pollution Control District (SJVAPCD) - Approval of construction-related air quality permits;
- SJVAPCD - Authority to Construct, Permit to Operate for stationary sources of air pollution; and
- San Joaquin Council of Governments - SJCOG, Inc. (SJCOG) - Issuance of incidental take permit under the San Joaquin Multi-Species Habitat Conservation and Open Space Plan (SJMSCP);
- San Joaquin Local Agency Formation Commission (LAFCo) – Annexation and Detachment from Lathrop Manteca Fire District.

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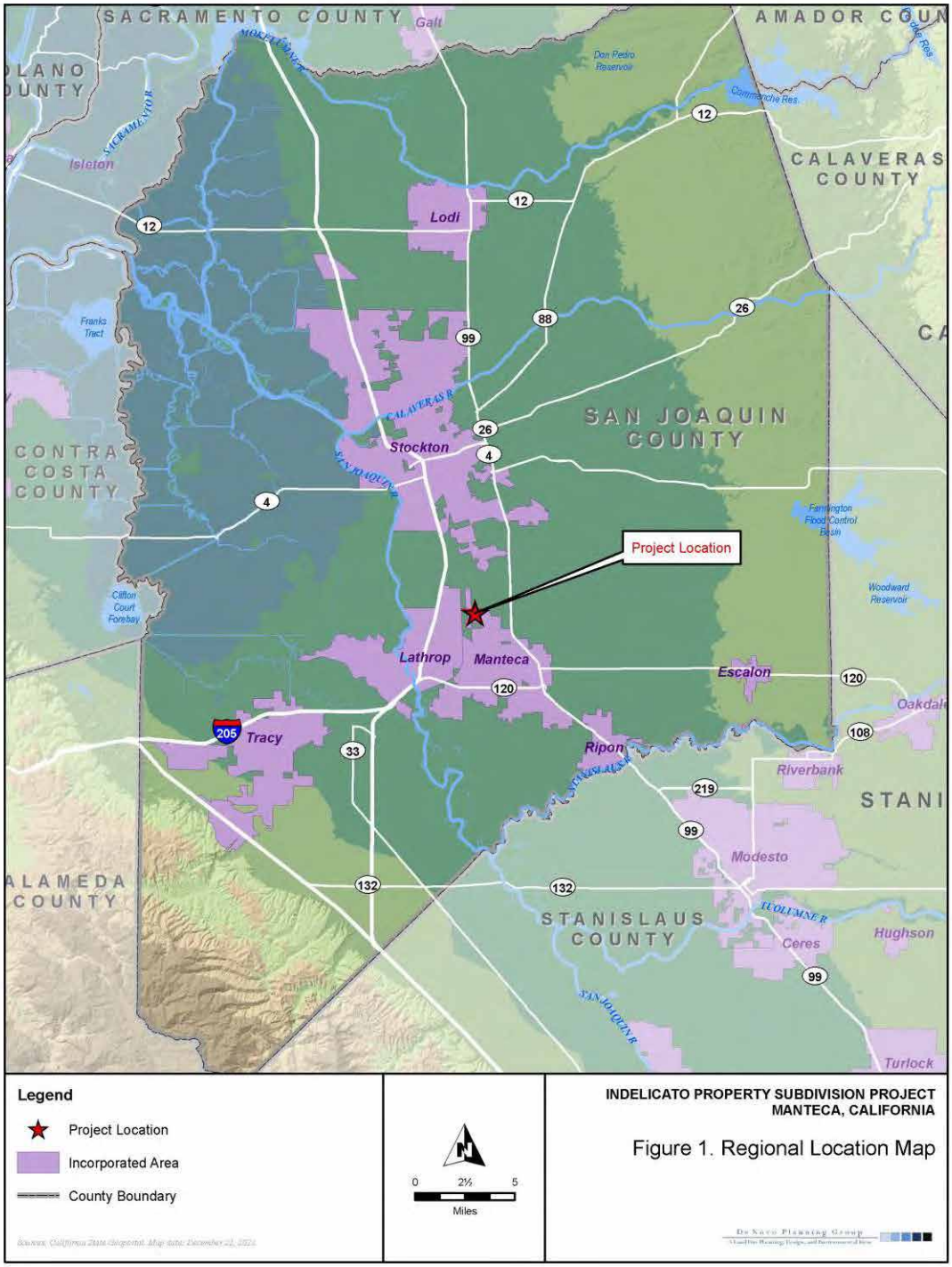
SACRAMENTO COUNTY
Galt
AMADOR COUN
Don Pedro Reservoir
Lake Res
Commerche Res.
CALAVERAS COUNTY
Isleton
Lodi
Franks Tract
SAN JOAQUIN COUNTY
CONTRA COSTA COUNTY
Stockton
CALAVERAS R
SAN JOAQUIN R
Farmington Flood Control Basin
Project Location
Woodward Reservoir
Clifton Court Forebay
Lathrop
Manteca
Escalon
Oakdale
Tracy
Ripon
STANISLAUS R
Riverbank
STANI
Modesto
ALAMEDA COUNTY
STANISLAUS COUNTY
TUOLUMNE R
Ceres
Hughson
SAN JOAQUIN R
Turlock
12
26
88
99
4
205
33
120
108
219
132
Legend
Project Location
Incorporated Area
County Boundary
0 2½ 5
Miles
INDELICATO PROPERTY SUBDIVISION PROJECT
MANTECA, CALIFORNIA
Figure 1. Regional Location Map

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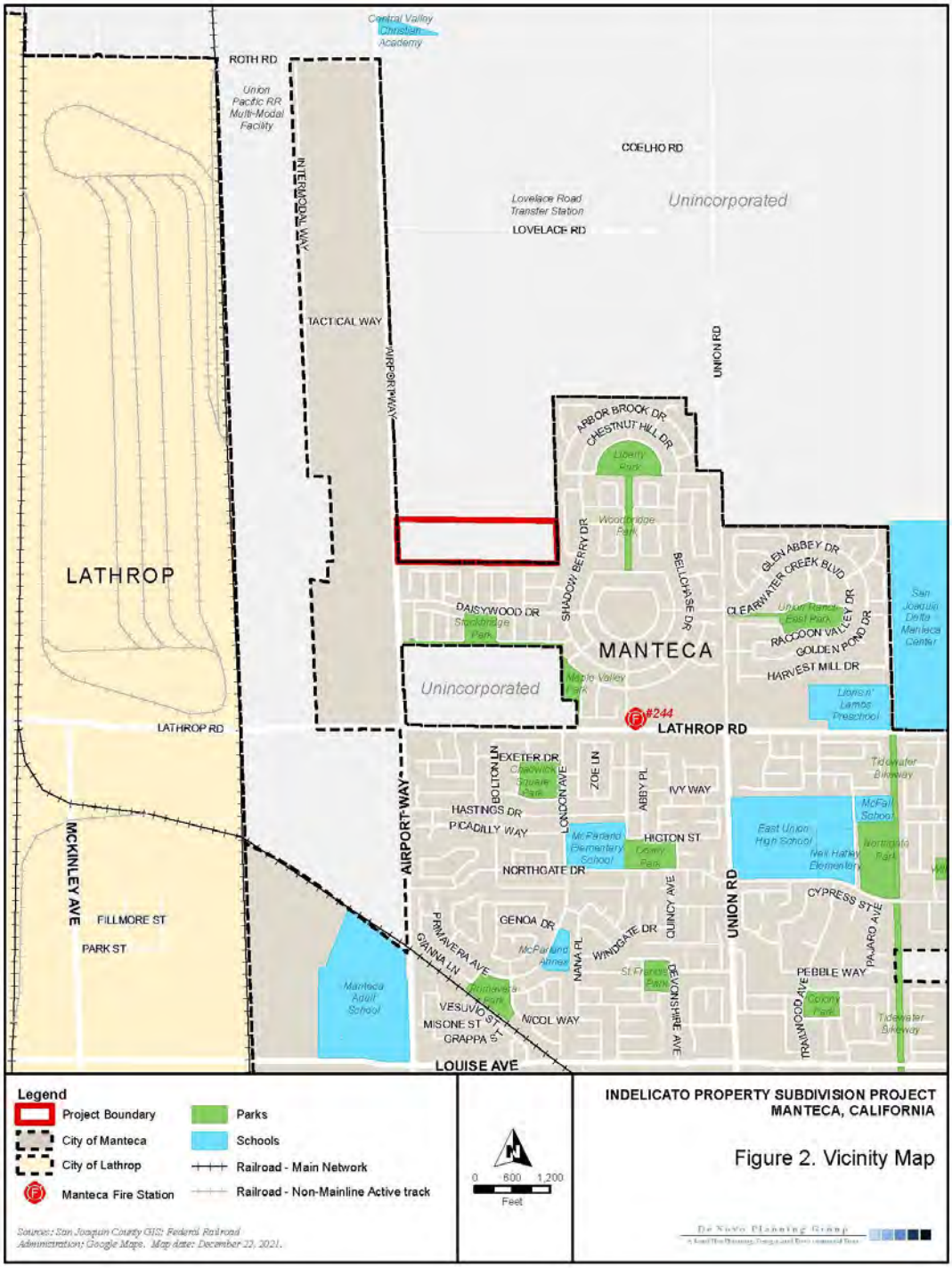
Central Valley Christian Academy
ROTH RD
Union Pacific RR Multi-Modal Facility
INTERMODAL WAY
COELHO RD
Lovelace Road Transfer Station
LOVELACE RD
Unincorporated
TACTICAL WAY
AIRPORT WAY
UNION RD
ARBOR BROOK DR
CHESTNUT HILL DR
Liberty Park
Woodbridge Park
SHADOW BERRY DR
BELLCHASE DR
GLEN ABBEY DR
CLEARWATER CREEK BLVD
RACCOON VALLEY DR
GOLDEN POND DR
HARVEST MILL DR
San Joaquin Delta Manteca Center
LATHROP
DAISYWOOD DR
Stockbridge Park
MANTECA
Unincorporated
Maple Valley Park
Lewis' Lambs Preschool
#244
LATHROP RD
EXETER DR
Chadwick Square Park
BOLTON LN
LONDON AVE
ZOE LN
ABBY PL
IVY WAY
Tidewater Bikeway
HASTINGS DR
PICADILLY WAY
McParland Elementary School
HIGTON ST
Doxey Park
East Union High School
McFall School
Nellie Hatley Elementary
Northgate Park
NORTHGATE DR
CYPRESS ST
MCKINLEY AVE
FILLMORE ST
PARK ST
GENOA DR
McParland Annex
WINDGATE DR
NANA PL
CINCY AVE
PAJARO AVE
PRIMAVERA AVE
GIANNA LN
St Francis Park
DEVONSHIRE AVE
PEBBLE WAY
Manteca Adult School
VESUVIO ST
MISONE ST
GRAPPA ST
NICOL WAY
TRAMWOOD AVE
Colony Park
LOUISE AVE
Legend
Project Boundary
City of Manteca
City of Lathrop
Manteca Fire Station
Parks
Schools
Railroad - Main Network
Railroad - Non-Mainline Active track
0 600 1,200
Feet
INDELICATO PROPERTY SUBDIVISION PROJECT
MANTECA, CALIFORNIA
Figure 2. Vicinity Map
De Novo Planning Group

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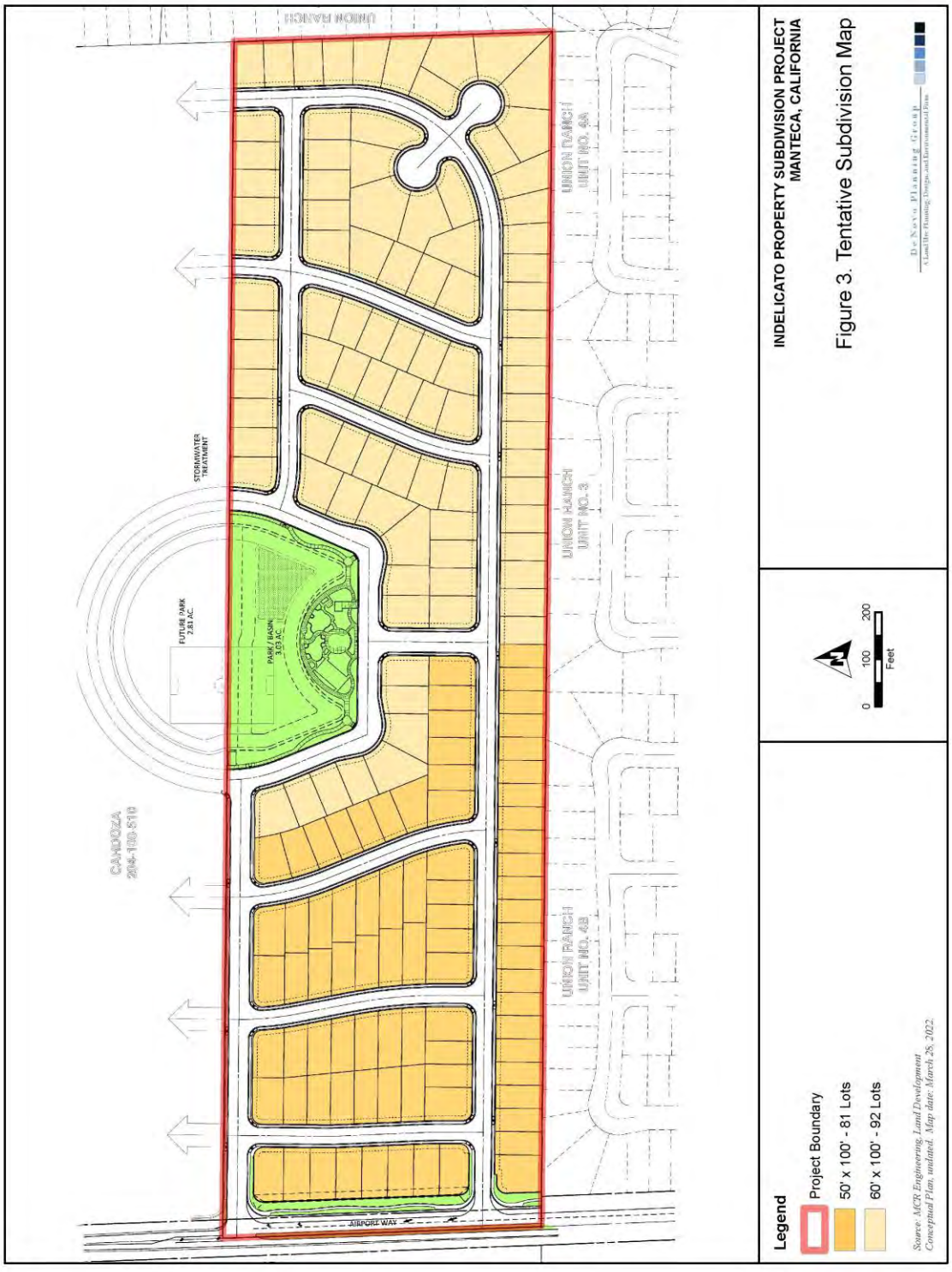
UNION RANCH
UNION RANCH UNIT NO. 4A
UNION RANCH UNIT NO. 3
UNION RANCH UNIT NO. 4B
STORMWATER TREATMENT
FUTURE PARK 2.81 AC.
PARK / BASIN 3.03 AC.
CANDOZA 209-100-510
AIRPORT WAY
INDELICATO PROPERTY SUBDIVISION PROJECT
MANTECA, CALIFORNIA
Figure 3. Tentative Subdivision Map
De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm
Legend
Project Boundary
50' x 100' - 81 Lots
60' x 100' - 92 Lots
0
100
200
Feet
Source: MCR Engineering, Land Development Conceptual Plan, undated. Map date: March 28, 2022.

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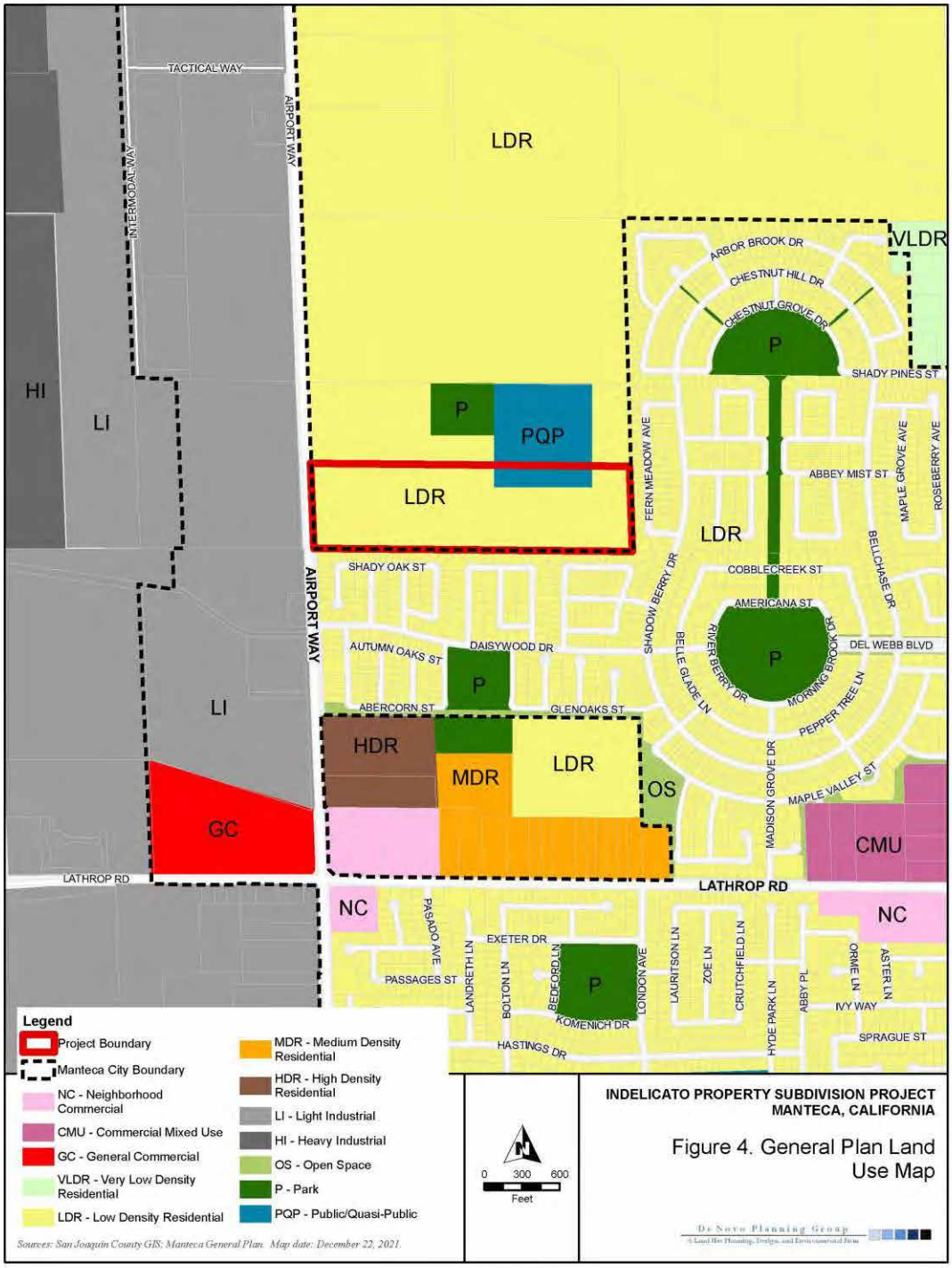
TACTICAL WAY
INTERMODAL WAY
AIRPORT WAY
LDR
VLDR
ARBOR BROOK DR
CHESTNUT HILL DR
CHESTNUT GROVE DR
P
SHADY PINES ST
HI
LI
PQP
LDR
FERN MEADOW AVE
ABBEY MIST ST
MAPLE GROVE AVE
ROSEBERRY AVE
LDR
SHADY OAK ST
COBBLECREEK ST
BELLCHASE DR
AMERICANA ST
SHADOW BERRY DR
AUTUMN OAKS ST
DAISYWOOD DR
P
RIVER BERRY DR
MORNING BROOK DR
DEL WEBB BLVD
BELLE GLADE LN
PEPPER TREE LN
ABERCORN ST
GLENOAKS ST
HDR
MDR
LDR
OS
MADISON GROVE DR
MAPLE VALLEY ST
CMU
GC
LATHROP RD
NC
PASADO AVE
EXETER DR
PASSAGES ST
LANDRETH LN
BOLTON LN
BEDFORD LN
P
LONDON AVE
LAURITSON LN
ZOE LN
CRUTCHFIELD LN
ABBY PL
HYDE PARK LN
ORME LN
ASTER LN
IVY WAY
KOMENICH DR
HASTINGS DR
SPRAGUE ST
Legend
Project Boundary
Manteca City Boundary
NC - Neighborhood Commercial
CMU - Commercial Mixed Use
GC - General Commercial
VLDR - Very Low Density Residential
LDR - Low Density Residential
MDR - Medium Density Residential
HDR - High Density Residential
LI - Light Industrial
HI - Heavy Industrial
OS - Open Space
P - Park
PQP - Public/Quasi-Public
Sources: San Joaquin County GIS; Manteca General Plan. Map date: December 22, 2021.
0 300 600
Feet
INDELICATO PROPERTY SUBDIVISION PROJECT
MANTECA, CALIFORNIA
Figure 4. General Plan Land Use Map
De Novo Planning Group

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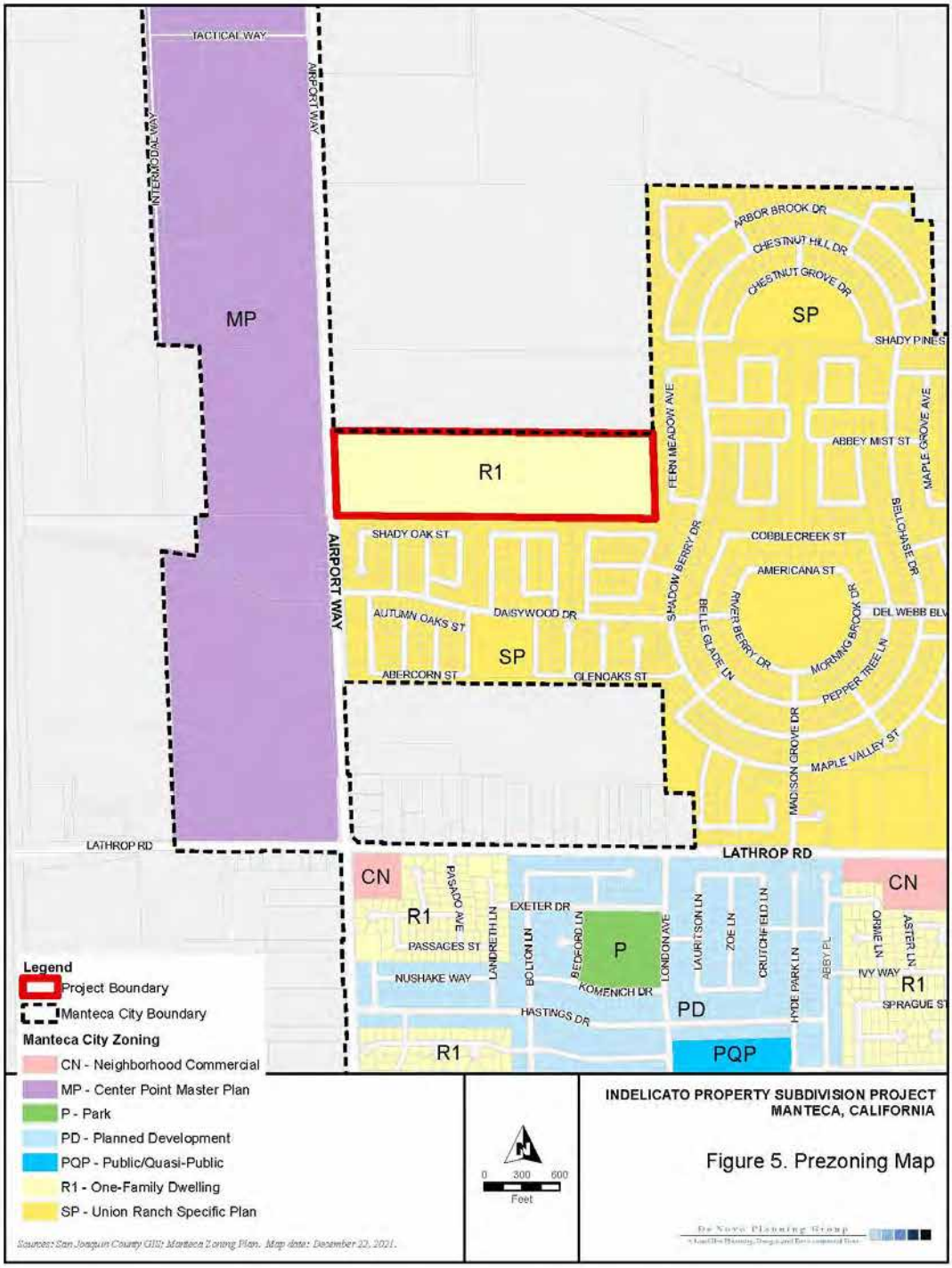
TACTICAL WAY
INTERMODAL WAY
AIRPORT WAY
MP
R1
SP
ARBOR BROOK DR
CHESTNUT HILL DR
CHESTNUT GROVE DR
SHADY PINES
FERN MEADOW AVE
ABBEY MIST ST
MAPLE GROVE AVE
BELLCHASE DR
SHADY OAK ST
COBBLECREEK ST
AMERICANA ST
SHADOW BERRY DR
AUTUMN OAKS ST
DAISYWOOD DR
RIVER BERRY DR
BELLE GLADE LN
MORNING BROOK DR
DEL WEBB BLV
ABERCORN ST
GLENOAKS ST
PEPPER TREE LN
MADISON GROVE DR
MAPLE VALLEY ST
LATHROP RD
CN
PASADO AVE
EXETER DR
PASSAGES ST
LANDRETH LN
BOLTON LN
BEDFORD LN
P
LONDON AVE
LAURITSON LN
ZOE LN
CRUTCHFIELD LN
ORME LN
ASTER LN
IVY WAY
NUSHAKE WAY
KOMENICH DR
HYDE PARK LN
ABBY PL
SPRAGUE ST
HASTINGS DR
PD
PQP
Legend
Project Boundary
Manteca City Boundary
Manteca City Zoning
CN - Neighborhood Commercial
MP - Center Point Master Plan
P - Park
PD - Planned Development
PQP - Public/Quasi-Public
R1 - One-Family Dwelling
SP - Union Ranch Specific Plan
Sources: San Joaquin County GIS; Manteca Zoning Plan. Map date: December 22, 2021.
0 300 600
Feet
INDELICATO PROPERTY SUBDIVISION PROJECT
MANTECA, CALIFORNIA
Figure 5. Prezoning Map
De Novo Planning Group

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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), c): There are no scenic viewsheds within the City of Manteca, and the City of Manteca General Plan does not specifically designate any scenic viewsheds within the city. The existing Manteca General Plan does, however, note Manteca's scenic environmental resources including the San Joaquin River environment, and scenic vistas of the Coast Range and the Sierra.

For analysis purposes, a scenic vista can be discussed in terms of a foreground, middle ground, and background viewshed. The middle ground and background viewshed is often referred to as the broad viewshed. Examples of scenic vistas can include mountain ranges, valleys, ridgelines, or water bodies from a focal point of the forefront of the broad viewshed, such as visually important trees, rocks, or historic buildings. An impact would generally occur if a project would change the view to the middle ground or background elements of the broad viewshed, or remove the visually important trees, rocks, or historic buildings in the foreground. There are no scenic middleground or background views from the Project site that would be significantly affected by the proposed project.

The proposed Project would not significantly disrupt middle ground or background views from public viewpoints. The proposed Project would result in changes to the foreground views from the public viewpoint by adding residential buildings to a site that is currently orchard.

Upon build-out, the Project site would be of similar visual character to nearby and adjacent developments (such as the residential community located to the south and west of the Project site). For motorists travelling along nearby roadways, such as Airport Way, the Project site would appear to be a continuation of adjacent residential land uses and would not present unexpected or otherwise unpleasant aesthetic values within the general vicinity.

The greatest visual change would apply to neighbors that are located to the south and east of the Project site with a direct view of the area from their backyards. Views of the Project site are generally not visible from residences beyond those that immediately abut the Project site. The proposed Project would change the view from those that do have visibility of the Project site from an orchard and open agricultural area to a residential neighborhood.

The change in character of the Project site, once developed, is anticipated by the General Plan and would be visually compatible with surrounding existing land uses. Moreover, although the City considers the visual impact from the loss of agricultural lands, not all agricultural lands are the same. The Project site does not have characteristics that would normally be considered a significant scenic amenity or visual resource. Furthermore, proposed setbacks and landscaping around the perimeter and at the entrance of the Project site will buffer the foreground viewshed from residents in the immediate vicinity. Therefore, implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Response b): The Project site is not located within view of a state scenic highway. Only one highway section in San Joaquin County is listed as a Designated Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of Interstate 580 from Interstate 5 to State Route 205. The City of Manteca is not visible from this roadway segment. Therefore, the proposed Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. Implementation of the proposed Project would have ***no impact*** relative to this topic.

Response d): The Project site currently consists of orchard and vacant agricultural land with no existing residences or structures. The Project site contains no existing lighting. There is a potential for the proposed Project to create new sources of light and glare. Examples of lighting would include construction lighting, street lighting, security lighting along sidewalks, exterior building lighting, interior building lighting, and automobile lighting. Examples of glare would include reflective building materials and automobiles.

There is a potential for the implementation of the proposed Project to introduce new sources of light and glare into the project area. Contributors to light and glare impacts would include construction lighting and street lighting that would create ongoing light impacts to the area. Nighttime construction activities are not anticipated to be required as part of on-site roadway construction. Operational light sources from street lighting may be required to provide for safe travel. However, to minimize light and glare impacts, the City has adopted ordinances that establish lighting standards for all new and existing development. These ordinances are existing standards. All street lighting would have to comply with the City of Manteca lighting standards. Section 17.50.060 of the Manteca Municipal Code identifies general lighting standards for light shielding, illumination levels, and nuisance prevention.

Moreover, the City of Manteca is in the process of adopting a Crime Prevention Through Environmental Design (CPTED) Ordinance. Supporting this effort, the City has two planners aboard who are (CPTED) certified. The new CPTED Ordinance will require all illumination sources to use LED. The exterior lighting will be aimed down and towards the Project site to

provide adequate illumination without glare effect. Fixtures will have bulbs that are fully recessed and shielded and will not emit light above the horizontal plane of the shielding.

LED is the best illumination source for reducing urban glare. All streetlights within the Project site would comply with the CPTED streetlight illumination standards. LED lights are 40 to 60% more energy efficient than traditional lighting technologies. By using LED luminaries, it is possible to provide better quality lighting with no glare, lower energy consumption, and reduce CO_2 emissions.

Lastly, it is noted that sky glow is an effect of light pollution, which has historically not been an environmental concern in the City of Manteca given their enforcement of their lighting ordinance which imposes design conditions on lighting within the City's jurisdiction. It is also noted that sky glow can also be a function of lighting density, which is a function of building density. For instance, nighttime light pollution and sky glow is much more common in densely populated urban environments, but is not common within the small suburban communities of the Central Valley.

Therefore, implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

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): The Project site is a mix of Farmland of Statewide Importance, and Farmland of Local Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency (California Department of Conservation, 2018).

The proposed conversion is consistent with the City's overall planning vision, as identified in the 2023 General Plan, which assumes the site would be developed with residential and park uses. The 2023 General Plan and General Plan EIR anticipated development of the Project site as part of the overall evaluation of buildout of the City. Additionally, the proposed General Plan Update designates this land for Low Density Residential uses consistent with the proposed Project and is anticipated in the overall buildout of the City as part of the General Plan Update EIR, currently out for public review. The 2023 General Plan EIR also addressed the conversion and loss of agricultural land that would result from buildout of the 2023 General Plan, providing a discussion of the General Plan policies intended to reduce impacts. The City certified the General Plan EIR, adopted Statement of Overriding Considerations and Findings of Fact, and adopted the General Plan. The proposed Project is consistent with the General Plan policies related to this topic, and the proposed Project does not cause an impact greater than what has already been considered in the City's certified EIR.

The proposed Project is subject to the City's agricultural mitigation fee program and the SJMSCP. Payment of these fees is standard for the conversion of farmland in the City of Manteca. Different types of land require different levels of mitigation. The entirety of San Joaquin County is mapped according to each land use category so that landowners, project proponents and project reviewers are aware of the applicable SJMSCP fees for the proposed development. The appropriate fees are collected by the City and remitted to SJCOG for administration. SJCOG uses

the funds to preserve open space land of comparable types throughout the County, often coordinating with other private or public land trusts to purchase conservation easements or buy land outright for preservation. Fees are automatically adjusted on an annual basis.

The project proponent will be required to pay the established fees on a per-acre basis for the loss of Farmland of Statewide Importance, and Farmland of Local Importance. Fees paid toward the City's program shall be used to fund conservation easements on comparable or better agricultural lands to provide compensatory mitigation. Implementation of the following mitigation would ensure there is a ***less than significant*** impact relative to this issue.

Mitigation Measure(s)

Mitigation Measure AG-1*: Prior to the conversion of important farmland on the Project site, the Project applicant shall participate in the City's agricultural mitigation fee program and the SJMSCP by paying the established fees on a per-acre basis for the loss of important farmland. Fees paid toward the City's program shall be used to fund conservation easements on comparable or better agricultural lands to provide compensatory mitigation.*

Response b): The Project site is not zoned for agricultural use by the City of Manteca nor is it under a Williamson Act contract (California Department of Conservation, 2016). The proposed Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. Implementation of the proposed Project would have ***no impact*** relative to this issue.

Response c): The Project site is not forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526). The proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland. Implementation of the proposed Project would have ***no impact*** relative to this issue.

Response d): The Project site is not forest land. The proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. Implementation of the proposed Project would have ***no impact*** relative to this issue.

Response e): The Project site does not contain forest land, and there is no forest land in the vicinity of the Project site. The Project site is designated LDR and will result in a conversion of the land to non-farmland. This is consistent with the General Plan. The proposed Project does not involve any other changes in the existing environment not disclosed under the previous responses 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. Implementation of the proposed Project would have a ***less than significant*** impact relative to this issue.

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 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.

Responses to Checklist Questions

Responses a), b): Air quality emissions would be generated during construction and during operation of the proposed project. Operational emissions would come primarily from vehicle emissions from vehicle trips generated by the proposed Project and from the use of energy (i.e., electricity and natural gas) within the proposed Project residences.

SJVAPCD Small Project Analysis Level (SPAL)

The SJVAPCD has established CEQA Small Project Analysis Level (SPAL) screening thresholds, which are based on District New Source Review (NSR) offset requirements for stationary sources (SJVAPCD, 2017). Projects that fit the descriptions and are less than the project sizes provided are deemed to have a less than significant impact on air quality due to criteria pollutant emissions and as such are excluded from quantifying criteria pollutant emissions for CEQA purposes. The Single-Family land use category was chosen for the purposes of the SPAL screening thresholds. According to the SPAL screening thresholds, Single Family projects that are less than 390 units and Condominiums/Townhouse projects that are less than 256 units in project size would have a less than significant impact on air quality due to criteria pollutant emissions. The proposed Project would develop up to 173 residential units, which is smaller than the 390-unit SPAL screening threshold for Single Family Projects.

Construction-Related Emissions

The SJVAPCD's approach to analysis of construction impacts is to require implementation of effective and comprehensive control measures, rather than to require detailed quantification of emission concentrations for modeling of direct impacts. PM_{10} emitted during construction can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors, making quantification difficult.

Despite this variability in emissions, experience has shown that there are a number of feasible control measures that can be reasonably implemented to significantly reduce PM_{10} emissions from construction activities. The SJVAPCD has determined that, on its own, compliance with Regulation VIII for all sites and implementation of all other control measures indicated in Tables 6-2 and 6-3 of the SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts (as appropriate) would constitute sufficient mitigation to reduce construction PM_{10} impacts to a level considered less than significant.

Construction would result in numerous activities that would generate dust. The fine, silty soils in the project area and often strong afternoon winds exacerbate the potential for dust, particularly in the summer months. Impacts would be localized and variable. Construction impacts would last for a period of several months to several years. The initial phase of project construction would involve grading and site preparation activities, followed by building construction. Construction activities that could generate dust and vehicle emissions are primarily related to grading, soil excavation, and other ground-preparation activities, as well as building construction.

Control measures are required and enforced by the SJVAPCD under Regulation VIII. The SJVAPCD considers construction-related emissions from all projects in this region to be mitigated to a less than significant level if SJVAPCD-recommended PM_{10} fugitive dust rules and equipment exhaust emissions controls are implemented. The proposed Project would be required to comply with all applicable measures from SJVAPCD Rule VIII. The proposed Project would have a less than significant impact related to construction activities on these potential impacts.

In addition, Table AIR-1 (below) provides the results of the construction-related emissions modeling results from CalEEMod in comparison to the SJVAPCD thresholds for criteria air pollutants.

Table AIR-1: Project Unmitigated Construction Criteria Pollutant Emissions (tons/year)

Emissions Type	*Proposed Project Emissions*	*SJVAPCD Threshold*	*Above Threshold in Proposed Project?*
ROG	2.17	10	N
NO_x	2.27	10	N
CO	2.73	100	N
PM_{10}	0.52	15	N
$PM_{2.5}$	0.25	15	N
SO_x	<0.1	27	N

Source: CalEEMod, v. 2020.4.0

Operational Emissions

For the purposes of this operational air quality analysis, actions that violate Federal standards for criteria pollutants (i.e., primary standards designed to safeguard the health of people considered to be sensitive receptors while outdoors and secondary standards designed to safeguard human welfare) are considered significant impacts. Additionally, actions that violate State standards developed by the CARB or criteria developed by the SJVAPCD, including thresholds for criteria pollutants, are considered significant impacts.

SJVAPCD Rule 9510 Indirect Source Review

District Rule 9510 requires developers of large 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 many project types, including to projects which, upon full build-out, will include 50 residential units or more. 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 Project applicant 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 Project would be required to consult with the SJVAPCD regarding the applicability of Rule 9510 Indirect Source Review including the fees.

Criteria Pollutant Emissions and Thresholds

Project operational emissions are provided in Table AIR-2 (below) (further detail is provided in Appendix A), in comparison to the SJVAPCD criteria pollutant thresholds.

Table AIR-2: Project Unmitigated Operational Criteria Pollutant Emissions (tons/year)

Emissions Type	*Proposed Project Emissions*	*SJVAPCD Threshold*	*Above Threshold in Proposed Project?*
ROG	2.22	10	N
NO_x	1.45	10	N
CO	8.57	100	N
PM_{10}	1.84	15	N
$PM_{2.5}$	0.52	15	N
SO_x	<0.1	27	N

Source: CalEEMod, v.2020.4.0

As shown above, the proposed Project would not exceed the applicable SJVAPCD thresholds associated with operational emissions. Therefore, the proposed Project would have a ***less than significant*** impact with regard to operational emissions.

Conclusion

As described above, the proposed Project would have ***a less than significant*** impact related to the potential to conflict with or obstruct implementation of the applicable air quality plan, or to 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.

Response c): Sensitive receptors are those parts of the population that can be severely impacted by air pollution. Sensitive receptors include children, the elderly, and the infirm. Although there

are existing residences located to the north, south, and west of the Project site, there are no schools located adjacent to the Project site. The nearest school (George Mc Parland Elementary School) is located approximately 0.8 miles to the southeast of the Project site, at its closest point. It is noted that the adjacent subdivision (Woodbridge), is a senior housing tract with developed single family detached. This is a 55+ community, which fits into the category of a sensitive receptor. The proposed residential development is consistent with those adjacent uses.

Implementation of the proposed Project would not expose these sensitive receptors to substantial pollutant concentrations. Air emissions would be generated during the construction and operational phases of the project. The construction phase of the project would be temporary and short-term, and the implementation of all State, Federal, and SJVAPCD requirements would greatly reduce pollution concentrations generated during construction activities. Additionally, operational emissions would be minimal and would have a negligible effect on nearby sensitive receptors.

Operation of the proposed Project would result in emissions from vehicle trips and from building energy use. However, as described under Response a) – b) above, the proposed Project would not generate significant concentrations of air emissions. Therefore, impacts to sensitive receptors would be negligible and this is a ***less than significant*** impact.

Response d): The proposed Project would not generate objectionable odors. People in the immediate vicinity of construction activities may be subject to temporary odors typically associated with construction activities (diesel exhaust, hot asphalt, etc.). However, any odors generated by construction activities would be minor and would be short and temporary in duration.

Examples of facilities that are known producers of operational odors include: Wastewater Treatment Facilities, Chemical Manufacturing, Sanitary Landfill, Fiberglass Manufacturing, Transfer Station, Painting/Coating Operations (e.g., auto body shops), Composting Facility, Food Processing Facility, Petroleum Refinery, Feed Lot/Dairy, Asphalt Batch Plant, and Rendering Plant. If a project would locate receptors and known odor sources in proximity to each other further analysis may be warranted; however, if a project would not locate receptors and known odor sources in proximity to each other, then further analysis is not warranted.

The project does not include any of the aforementioned uses. Additionally, construction activities would be temporary and minor. Lastly, other emissions are evaluated in responses a-c), as provided above. As such, implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

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		

Regional Setting

The City of Manteca is located in the western portion of the Great Valley Geomorphic Province of California. The Great Valley Province is a broad structural trough bounded by the tilted block of the Sierra Nevada on the east and the complexly folded and faulted Coast Ranges on the west. The San Joaquin River is located just south and west of the City. This major river drains the Great Valley Province into the San Joaquin Delta to the north, ultimately discharging into the San Francisco Bay to the northwest.

The City of Manteca is located within the San Joaquin Valley Bioregion, which is comprised of Kings County, most of Fresno, Kern, Merced, and Stanislaus counties, and portions of Madera, San Luis Obispo, and Tulare counties. The San Joaquin Valley Bioregion is the third most populous out of ten bioregions in the state, with an estimated 2 million people. The largest cities are Fresno, Bakersfield, Modesto, and Stockton. Interstate 5 and State Route 99 are the major north-south roads that run the entire length of the bioregion. Habitat in the bioregion includes vernal pools, valley sink scrub and saltbush, freshwater marsh, grasslands, arid plains, orchards, and oak savannah. Historically, millions of acres of wetlands flourished in the bioregion, but stream diversions for irrigation dried all but about five percent. Remnants of the wetland habitats are

protected in this bioregion in publicly owned parks, reserves, and wildlife areas. The bioregion is considered the state's top agricultural producing region with the abundance of fertile soil.

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 is relatively flat, and is composed of level agricultural fields, farm roads/driveways, irrigation ditches/catch basins, residences, outbuildings, and debris piles. Elevation ranges from approximately 24 to 26 feet above mean sea level. There are no rivers, streams, or other natural aquatic habitats on the Project site.

The western half of the Project site is orchard and the eastern half consists of agricultural fields. Along the fringe of the orchard, agricultural fields, and roadways is a vegetation that is characterized as ruderal, with very barren areas. Common plant species observed along the fringe area include: wild oat (*Avena barbata*), softchess (*Bromus hordeaceus*) alfalfa (*Medicago sativa*), Russian thistle (Salsola tragus), Italian thistle (*Carduus pycnocephalus*), rough pigweed (*Amaranthus retroflexus*), sunflower (*Helianthus annuus*), tarragon (*Artemisia dracunculus*), prickly lettuce (*Lactuca serriola*), milk thistle (*Silybum marianum*), sow thistle (*Sonchus asper*), barley (*Hordeum* sp.), mustard (*Brassica niger*), and heliotrope (*Heliotropium curassavicum*).

Agricultural and 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: 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): 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 background search was regional in scope and focused on the documented occurrences within the 12-quadrangle radius for the Project site (within approximately 15~~0~~ miles of the Project site). It is noted that database searches are generally 9-quad searches, however, because the Project site is located partially within two quadrangles (Lathrop and Manteca U.S. Geological Survey (USGS) quadrangles), the CNDDB search was expanded to included 12 quadrangles instead of the required nine quadrangles. As shown in Figure 6, the 12 USGS quadrangles which were searched include: Holt, Stockton West, Stockton East, Peters, Union Island, Lathrop, Manteca, Avena, Tracy,

Vernalis, Ripon, and Salida. Table BIO-1 provides a list of special-status plants and Table BIO-2 provides a list of special-status animals.

Special Status Plant Species

~~There are seven special status plants identified as having the potential to occur on the Project site based on known occurrences in the region. These include: Big tarplant (*Blepharizonia plumose*), Slough thistle (*Cirsium crassicaule*), Recurved larkspur (*Delphinium recurvatum*), Round-leaved filaree (*Erodium macrophyllum*), Delta button-celery (*Eryngium racemosum*), Wright's trichocoronis (*Trichocoronis wrightii var. wrightii*), and Caper-fruited tropidocarpum (*Tropidocarpum capparideum*).~~

~~Of the seven species, there are no federal listed species, one state listed species (endangered), five CNPS 1B listed species (including the state listed species), and two CNPS 2 listed species. The state listed species and CNPS 1B listed species are covered species under the SJMCP. The CNPS 2 listed species are not covered under the SJMCP.~~ The following special status plants were identified within the regional search based on known occurrences in the region. However, due to species specific habitat requirements combined with the wide-ranging habitats within the regional search (i.e., elevation, plant community, etc.), many of these species have no potential to occur on the Project site. Habitat conditions and plant surveys were performed to verify conditions.

TABLE BIO-1: SPECIAL-STATUS PLANT SPECIES WHICH MAY OCCUR IN PROJECT AREA

SPECIES	STATUS (FED./CA/ CNPS/SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT AND BLOOMING PERIOD
alkali milk-vetch *Astragalus tener var. tener*	--/--/1B.2/Yes	Eastern San Francisco Bay region, the Delta, and western San Joaquin Valley south to the lower Salinas and San Benito valleys	Grassy alkaline flats and vernally moist meadows at elevations below 500 ft. March-June
alkali-sink goldfields *Lasthenia chrysantha*	--/--/1B.1/No	Endemic to the Central Valley	Vernal pools. Alkaline. 0-200 m. Feb-June
Big tarplant *Blepharizonia plumosa*	--/--/1B.1/No	San Francisco Bay area with occurrences in Alameda, Contra Costa, San Joaquin, Stanislaus, and Solano Counties	Valley and foothill grassland; 30-505 m. July-Oct.
bristly sedge *Carex comosa*	--/--/2B.1/Yes	Scattered occurrences throughout California, including the inner North Coast Ranges, Klamath Ranges, High Cascade Range, San Francisco Bay area, Sacramento valley, San Joaquin valley, Central coast, San Bernardino Mountains, Warner Mountains, and Modoc Plateau. Outside of California: British Columbia and eastern North America.	Plants are indigenous to swamps, seeps, freshwater tidal marshes, bogs, pond and lake margins, wet meadows and ditches. July - August
California alkali grass *Puccinellia simplex*	--/--/1B.2/No	Scattered locations in the Central Valley to Utah	Saline flats, mineral springs. March-May
diamond-petaled California poppy *Eschscholzia rhombipetala*	--/--/1B.1/Yes	Found in Alameda, Contra Costa*, Colusa*, San Joaquin, San Luis Obispo (SLO), Stanislaus* Counties *presumed extirpated	Valley and foothill grassland. Alkaline, clay slopes and flats. 30-625 m. Mar-Apr.
Greene's tuctoria *Tuctoria greenei*	E/R/1B.1/Yes	Historic range is the Central Valley from Shasta to Tulare county, although it is extirpated from several of the southern counties	Large, relatively deep vernal pools, which often are located on low-lying lands suitable for agriculture. May-July
Heartscale *Atriplex cordulata var. cordulata*	--/--/1B.2/Yes	Central Valley and interior valleys of the Coast Range from Butte to Kern counties	Saline or alkaline sandy soils in grassland or saltbush scrub. March-October

SPECIES	STATUS (FED./CA/ CNPS/SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT AND BLOOMING PERIOD
large-flowered fiddleneck *Amsinckia grandiflora*	E/E/1B.1/Yes	Native to California found in Contra Costa, Alameda, and San Joaquin Counties	Found in grasslands; it grows on sedimentary loam in mesic areas of its range. April - May
lesser saltscale *Atriplex minuscula*	--/--/1B.1/No	Scattered locations in the Central Valley in Alameda, Butte, Fresno, Kings, Kern, Madera, Merced, Stanislaus, Tulare counties	Alkaline, sandy soils. Chenopod scrub, playas, valley and foothill grassland. May-October
Mason's lilaeopsis *Lilaeopsis masonii*	--/R/1B.1/	Sacramento-San Joaquin River Delta and nearby shores of San Francisco Bay.	Marshes and swamps, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. In brackish or freshwater. 0-10 m. Apr-Nov.
palmate-bracted bird's-beak *Chloropyron palmatum*	E/E/1B.1/No	Scattered locations in Fresno and Madera counties in the San Joaquin Valley, San Joaquin, Yolo, and Colusa counties in the Sacramento Valley, and the Livermore Valley area of Alameda County.	Saline-alkaline soils in seasonally flooded lowland plains and basins at elevations of less than 500 feet. May-October
saline clover *Trifolium hydrophilum*	--/--/1B.2/No	Eastern and Northern San Francisco Bay region, the Delta, western San Joaquin Valley, southern San Jose	Marshes and swamps, Valley and foothill grassland (mesic, alkaline), and Vernal pools. April-June
San Joaquin spearscale *Extriplex joaquinana*	--/--/1B.2/No	Delta region, central valley and central coast	Alkaline. Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland. April-October
Sanford's arrowhead *Sagittaria sanfordii*	--/--/1B.2/Yes	Its historic range in California is the Central Valley from Butte County to Fresno County and along the coast from Del Norte County to Ventura County. It is mostly extirpated from the Central Valley due to channel and flow alteration of the major waterways	Shallow, slow moving waters. Although its natural habitat is along streams and rivers, it also is sometimes found along man-made channels. May-October
showy golden madia *Madia radiata*	--/--/1B.1/No	It is endemic to California, where it is known mostly from the Central Coast Ranges and adjacent edges of the San Francisco Bay Area and Central Valley.	Valley and foothill grassland, cismontane woodland. Mostly on adobe clay in grassland or among shrubs. 75-1220 m. Mar-May.
Slough thistle *Cirsium crassicaule*	--/--/1B.1/Yes	San Joaquin Valley: Kings, Kern, and San Joaquin Counties	Freshwater sloughs and marshes; 3-100 m. May-August.
Suisun Marsh aster *Symphyotrichum lentum*	--/--/1B.2/Yes	Delta region. Primarily the Bouldin Island, Isleton, Holt, Terminous, and Woodward Island quad	Water's edge, in places where water is brackish and there is some tidal influence. May-November
Recurved larkspur *Delphinium recurvatum*	--/--/1B.2/Yes	Central Valley from Colusa to Kern Counties	Alkaline soils in saltbush scrub, cismontane woodland, valley and foothill grassland; 3-750 m. March-May.
Round-leaved filaree *Erodium macrophyllum*	--/--/2.1/No	Scattered occurrences in the Great Valley, southern north Coast Ranges, San Francisco Bay area, south Coast Ranges, Channel Islands, Transverse Ranges, and Peninsular Ranges	Cismontane woodland, valley and foothill grassland on clay soils; 15-1,200 m. March-May.
Delta button-celery *Eryngium racemosum*	--/E/1B.1/Yes	San Joaquin River delta floodplains and adjacent Sierra Nevada foothills: Calaveras, Merced, San Joaquin, and Stanislaus Counties	Riparian scrub, seasonally inundated depressions along floodplains on clay soils; below 75 m. June-August.
Delta mudwort *Limosella australis*	--/--/2B.1/Yes	Found in Contra Costa County, Sacramento County, San Joaquin County, and Solano County.	Riparian scrub, marshes and swamps. Usually on mud banks of the Delta in marshy or scrubby riparian associations; often with Lilaeopsis masonii. 0-5 m. May-Aug.

SPECIES	STATUS (FED./CA/ CNPS/SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT AND BLOOMING PERIOD
Delta tule pea *Lathyrus jepsonii var. jepsonii*	--/--/1B.2/Yes	Primarily from the water's edge in the brackish and fresh-water portions of the Delta region, there are also records of this species from Fresno, Marin, San Benito, and Santa Clara counties. Within San Joaquin County	Closely associated with the waterways of the Delta. May-July
Wright's trichocoronis *Trichocoronis wrightii* var. *wrightii*	--/--/2B.1/Yes	Scattered locations in the Central Valley; southern coast of Texas	Floodplains, moist places, on alkaline soils; below 450 m. May-September.
Caper-fruited tropidocarpum *Tropidocarpum capparideum*	--/--/1B.1/Yes	Historically known from the northwest San Joaquin Valley and adjacent Coast Range foothills; currently known from Fresno, Monterey, and San Luis Obispo Counties	Alkaline hills in valley and foothill grassland; below 455 m. March-April.
watershield *Brasenia schreberi*	--/--/2B.3/No	Central Valley of California and western North America	Freshwater Marshes and swamps. June-September
woolly rose-mallow *Hibiscus lasiocarpos var. occidentalis*	--/--/1B.2/Yes	Central Valley of California, as well as populations in eastern North America	All along the waterways of the Delta. June-September

NOTES: CNPS = CALIFORNIA NATIVE PLANT SOCIETY
SJMSCP = SAN JOAQUIN MULTI-SPECIES HABITAT CONSERVATION AND OPEN SPACE PLAN

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.
T = THREATENED UNDER THE FEDERAL 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).

Special Status Wildlife Species

The following special status wildlife were identified within the regional search based on known occurrences in the region. However, due to species specific habitat requirements combined with the wide-ranging habitats within the regional search (i.e., elevation, plant community, etc.), many of these species have no potential to occur on the Project site. Habitat conditions and field surveys were performed to verify conditions.

TABLE BIO-2: SPECIAL-STATUS WILDLIFE AND FISH SPECIES WHICH MAY OCCUR IN PROJECT AREA

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
INVERTEBRATES			
Vernal pool fairy shrimp *Branchinecta lynchi*	T/--/Yes	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. Isolated populations also in Riverside County	Common in vernal pools; they are also found in sandstone rock outcrop pools.
Vernal pool tadpole shrimp *Lepidurus packardi*	E/--/Yes	Shasta County south to Merced County	Vernal pools and ephemeral stock ponds.

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
Molestan blister beetle *Lytta molesta*	--/--/Yes	Distribution of this species is poorly known.	Annual grasslands, foothill woodlands or saltbush scrub.
Sacramento anthicid beetle *Anthicus sacramento*	--/--/No	Found in several locations along the Sacramento and San Joaquin rivers, from Shasta to San Joaquin counties, and at one site along the Feather River.	Sand dune area, sand slipfaces among bamboo and willow, but may not depend on these plants.
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	T/--/Yes	Stream side habitats below 3,000 feet throughout the Central Valley	Riparian and oak savanna habitats with elderberry shrubs; elderberries are the host plant.
Conservancy fairy shrimp *Branchinecta conservatio*	E/--/Yes	Sacramento Valley and the northern San Joaquin Valley, and the eastern flank of the central coastal range	Large to very large vernal pools and vernal lakes although they also have been found in alkaline pools
AMPHIBIANS			
California tiger salamander *Ambystoma californiense (A. tigrinum c.)*	T/~~SSC~~T (WL)/Yes	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to northeastern San Luis Obispo County.	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.
California red-legged frog *Rana aurora draytoni*	T/SSC/Yes	Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County	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.
foothill yellow-legged frog *Rana boylii*	--/E (SSC)/ Yes	Coast Ranges from northern Oregon, through California, and into Baja California, Mexico as well as in the foothills of the Sierra Nevada and southern Cascade Range in California.	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/Yes	Occur throughout the Central Valley of California into northwestern Baja California. In Baja, they are found at least as far south as Mesa de San Carlos.	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.
BIRDS			
Aleutian goose *Branta canadensis leucopareia*	D/(WL)~~--~~ /Yes	The entire population winters in Butte Sink, then moves to Los Banos, Modesto, the Delta, and East Bay reservoirs; stages near Crescent City during spring before migrating to breeding grounds.	Roosts in large marshes, flooded fields, stock ponds, and reservoirs; forages in pastures, meadows, and harvested grainfields; corn is especially preferred
American Peregrine Falcon *Falco peregrinus anatum*	D (BCC)/FP ~~D~~/No	Patchy breeding distribution and occur across the continental U.S., with bigger concentrations taking place in the western states and Alaska. They winter in the northern limits of their range, including portions of Canada, and are very widespread during migration.	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.
Bald eagle *Haliaeetus leucocephalus*	D (BCC)/E/No	Nests in Siskiyou, Modoc, Trinity, Shasta, Lassen, Plumas, Butte, Tehama, Lake, and Mendocino Counties and in the Lake Tahoe Basin. Reintroduced into central coast. Winter range includes the rest of California, except the southeastern deserts, very high altitudes in the Sierra Nevada, and east of the Sierra Nevada south of Mono County	In western North America, nests and roosts in coniferous forests within 1 mile of a lake, reservoir, stream, or the ocean

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
Burrowing owl *Athene cunicularia*	BCC/SSC/Yes	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows
California black rail *Laterallus jamaicensis coturniculus*	BCC/T (FP)/Yes	Permanent resident in the San Francisco Bay and east-ward through the Delta into Sacramento and San Joaquin Counties; small populations in Marin, Santa Cruz, San Luis Obispo, Orange, Riverside, and Imperial Counties	Tidal salt marshes associated with heavy growth of pickleweed; also occurs in brackish marshes or freshwater marshes at low elevations
California horned lark *Eremophila alpestris actia*	--/(WL)/Yes	Central Valley and coastal valleys and foothills.	Forage in large groups in open grasslands, nesting in hollows on the ground, and are also regularly found breeding on the Valley floor in suitable habitat.
Fox sparrow *Branta canadensis leucopareia*	BCC/--/No	Found throughout North American, with several subspecies wintering in chaparral in California.	Breed in thickets and chaparral across northern North America and south along the western mountains. During migration, Fox Sparrows forage in the leaf litter of open hardwood forests as well as swampy thickets. Winter in chaparral.
Least Bittern *Ixobrychus exilis*	BCC/SSC/No	Nest in large marshes with dense vegetation from southern Canada to northern Argentina. These birds migrate from the northern parts of their range in winter for the southernmost coasts of the United States and areas further south, travelling at night.	Colonial nester in marshlands and borders of ponds and reservoirs which provide ample cover. Nests usually placed low in tules, over water. Marsh & swamp wetland.
least Bell's vireo *Vireo bellii pusillus*	E/E/No	Central Valley of California and other low-elevation river valleys.	Dense brush, mesquite, willow-cottonwood forest, streamside thickets, and scrub oak
lesser yellowlegs *Branta canadensis leucopareia*	BCC/--/No	Wintering occurs along the coasts of California, Baja California, southeastern U.S., and along the Gulf of Mexico, in addition to southeastern Texas and throughout Central America.	Wintering habitat use varies with rainfall; tidal flats may be frequented during the dry season, while adjacent shallow lagoons and marshes are used during the rainy season.
lewis's woodpecker *Branta canadensis leucopareia*	BCC/--/No	Breed from southern British Columbia down to Arizona and New Mexico; this range also covers California east to Colorado. They winter from southern British Columbia throughout the southwestern U.S. Within the northern portion of its breeding range, it remains present throughout the year in many portions of its breeding range.	Open ponderosa pine forest, open riparian woodland dominated by cottonwood, and logged or burned pine forest. Their breeding distribution is widely associated with ponderosa pine distribution in western North America. Lewis's Woodpeckers commonly reuse existing nest holes or natural cavities in trees, as they do not use newly excavated ones.
Loggerhead shrike *Lanius ludovicianus*	BCC/SSC/Yes	Resident and winter visitor in lowlands and foothills throughout California. Rare on coastal slope north of Mendocino County, occurring only in winter	Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches
Long-billed curlew *Numenius americanus*	BCC/--/Yes	Nests in northeastern California in Modoc, Siskiyou, and Lassen Counties. Winters along the coast and in interior valleys west of Sierra Nevada	Nests in high-elevation grasslands adjacent to lakes or marshes. During migration and in winter; frequents coastal beaches and mudflats and interior grasslands and agricultural fields
Marbeled godwit *Branta canadensis leucopareia*	BCC/--/No	Breeds in Montana as well as North and South Dakota, with this range extending through Alberta, Saskatchewan and Manitoba in Canada. Marbled Godwits winter along both coasts and the Gulf of Mexico and are transient elsewhere.	Breeds in marshes and flooded plains, in migration and winter also on mudflats and beaches.

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
Mountain plover *Charadrius montanus*	BCC/SSC/Yes	Does not breed in California; in winter, found in the Central Valley south of Yuba County, along the coast in parts of San Luis Obispo, Santa Barbara, Ventura, and San Diego Counties; parts of Imperial, Riverside, Kern, and Los Angeles Counties	Occupies open plains or rolling hills with short grasses or very sparse vegetation; nearby bodies of water are not needed; may use newly plowed or sprouting grainfields
Nuttalls woodpecker *Branta canadensis leucopareia*	BCC/--/No	Year-round distribution occurs from northern California and southward to northwestern Baja California.	Found primarily in oak woodlands, but also found in riparian woodlands. Tree nest cavity excavated by males with little assistance from females; male may roost in cavity as it nears completion.
Oak titmouse *Baeolophus inornatus*	BCC/S/No	Nonmigratory species that breeds from Oregon, through California and to northwest Baja California, Mexico.	Live in warm, open, dry oak or oak-pine woodlands. Many will use scrub oaks or other brush as long as woodlands are nearby. Nests are built in tree cavities. Occasionally, Oak Titmice nest in stumps, fenceposts, pipes, eaves, or holes in riverbanks. They will also use nest boxes.
Short-eared owl *Asio flammeus*	BCC/SSC/Yes	Permanent resident along the coast from Del Norte County to Monterey County although very rare in summer north of San Francisco Bay, in the Sierra Nevada north of Nevada County, in the plains east of the Cascades, and in Mono County; small, isolated populations	Freshwater and salt marshes, lowland meadows, and irrigated alfalfa fields; needs dense tules or tall grass for nesting and daytime roosts.
Song sparrow (Modesto Population) *Melospiza melodia*	BCC/SSC/Yes	Restricted to California, where it is locally numerous in the Sacramento Valley, Sacramento–San Joaquin River Delta, and northern San Joaquin Valley. Exact boundaries of range uncertain.	Found in emergent freshwater marshes dominated by tules (*Scirpus* spp.) and cattails (*Typha* spp.) as well as riparian willow (*Salix* spp.) thickets. They also nest in riparian forests of Valley Oak (*Quercus lobata*) with a sufficient understory of blackberry (*Rubus* spp.), along vegetated irrigation canals and levees, and in recently planted Valley Oak restoration sites.
Swainson's hawk *Buteo swainsoni*	BCC/T/Yes	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley. Highest nesting densities occur near Davis and Woodland, Yolo County	Nests in oaks or cottonwoods in or near riparian habitats. Forages in grasslands, irrigated pastures, and grain fields
Merlin *Falco columbarius*	--/WL~~—~~/Yes	Does not nest in California. Rare but widespread winter visitor to the Central Valley and coastal areas	Forages along coastline in open grasslands, savannas, and woodlands. Often forages near lakes and other wetlands
Tricolored blackbird *Agelaius tricolor*	BCC/T~~C~~ (SSC)/Yes	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties	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
Western grebe *Branta canadensis leucopareia*	BCC/--/No	Breeds mainly from western Canada, east to southwestern Manitoba, and south through U.S. from California and Utah through the northern Rocky Mountain and upper Great Plains states. Winters mainly along Pacific Coast from southeastern Alaska to northwestern Mexico.	Breed on freshwater lakes and marshes with extensive open water bordered by emergent vegetation. During winter they move to saltwater or brackish bays, estuaries, or sheltered sea coasts and are less frequently found on freshwater lakes or rivers.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	T (BCC)/E/Yes	Nests along the upper Sacramento, lower Feather, south fork of the Kern, Amargosa, Santa Ana, and Colorado Rivers	Wide, dense riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging; may avoid valley oak riparian habitats where scrub jays are abundant

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
White-tailed kite *Elanus leucurus*	--/--/Yes	Gulf Coast in Texas and Mexico and in the valley and coastal regions of central and southern California.	Grasslands, marshes, row crops and alfalfa, where they hover while foraging for rodents and insects
Williamson's sapsucker *Branta canadensis leucopareia*	BCC/--/No	Breeding: Southern British Columbia, through central Washington to California; extending to Idaho, Montana, Utah, Wyoming, Colorado, New Mexico and Arizona. Winter: Arizona, New Mexico, through the Sierra Madres and into central Mexico.	Inhabits open coniferous and mixed coniferous-deciduous forests.
Yellow-billed magpie *Pica nuttalli*	BCC/--/No	The year-round range of Yellow-billed Magpies is entirely in California.	Resides in oak savanna, open areas with large trees, and along streams. This species also forages in grassland, pasture, fields, and orchards.
Yellow-headed blackbird *Xanthocephalus*	--/SSC/Yes	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds.	Nests only where large insects such as odonatan are abundant, nesting timed with maximum emergence of aquatic insects.
FISH			
Delta smelt *Hypomesus transpacificus*	T/T/Yes	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/No	Tributary streams in the San Joaquin drainage; large tributary streams in the Sacramento River and the main stem	Resides in low to mid-elevation streams and prefer clear, deep pools and runs with slow velocities. They also occur in reservoirs.
Central Valley steelhead *Oncorhynchus mykiss*	T/--/No	Sacramento River and tributary Central Valley rivers.	Occurs in well-oxygenated, cool, riverine habitat with water temperatures from 7.8°C to 18°C. Habitat types are riffles, runs, and pools.
Central Valley fall- /late fall-run Chinook salmon *Oncorhynchus tshawytscha*	--/SSC/No	Sacramento and San Joaquin Rivers and tributary Central Valley rivers.	Have the same general habitat requirements as winter and spring-run Chinook salmon.
Longfin smelt *Spirinchus thaleichthys*	C–/T~~SSC~~/Yes	Occurs in estuaries along the California coast. Adults concentrated in Suisun, San Pablo, and North San Francisco Bays.	Prior to spawning, these fish aggregate in deepwater habitats available in the northern Delta, including, primarily, the channel habitats of Suisun Bay and the Sacramento River. Spawning occurs in fresh water on the San Joaquin River below Medford Island and on the Sacramento River below Rio Vista.
MAMMALS			
pallid bat *Antrozous pallidus*	--/SSC/No	Pallid bats range from southern British Columbia through Montana to central Mexico. They occur from the Okanagan valley in British Columbia, south through eastern Washington, Oregon, and California to Baja California Sur, Sonora, Sinaloa, Nayarit, Jalisco, Queretaro, and Nuevo Leon in Mexico. They are found as far east as western Texas, Oklahoma, southern Kansas, southern Wyoming, and southern Idaho.	Mountainous areas, intermontane basins, lowland desert scrub, arid deserts and grasslands. Roosts in rock outcrops, hollow trees, abandoned mines, barns, and attics.
Riparian (San Joaquin Valley) woodrat *Neotoma fuscipes riparia*	E/SSC~~,~~ ~~FP~~/Yes	Historical distribution along the San Joaquin, Stanislaus, and Tuolumne Rivers, and Caswell State Park in San Joaquin, Stanislaus, and Merced Counties; presently limited to San Joaquin County at Caswell State Park and a possible second population near Vernalis	Riparian habitats with dense shrub cover, willow thickets, and an oak overstory

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
Riparian brush rabbit *Sylvilagus bachmani riparius*	E/E/Yes	Limited to San Joaquin County at Caswell State Park near the confluence of the Stanislaus and San Joaquin Rivers and Paradise Cut area on Union Pacific right-of-way lands	Native valley riparian habitats with large clumps of dense shrubs, low-growing vines, and some tall shrubs and trees
American badger *Taxidea taxus*	--/SSC/Yes	In California, badgers occur throughout the state except in humid coastal forests of northwestern California in Del Norte and Humboldt Counties	Badgers occur in a wide variety of open, arid habitats but are most commonly associated with grasslands, savannas, mountain meadows, and open areas of desert scrub; the principal habitat requirements for the species appear to be sufficient food (burrowing rodents), friable soils, and relatively open, uncultivated ground
San Joaquin kit fox *Vulpes macrotis mutica*	E/T/Yes	Principally occurs in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County	Saltbush scrub, grassland, oak, savanna, and freshwater scrub
Townsend's big-eared bat *Corynorhinus townsendii*	--/SSC/Yes	Throughout California in a wide variety of habitats	Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.
western mastiff bat *Eumops perotis californicus*	--/SSC/Yes	Ranges from central Mexico across the southwestern United States (parts of California, southern Nevada, southwestern Arizona, southern New Mexico and western Texas). Significant populations of E. perotis occur in many of the Sierra Nevada river drainages, particularly in the central and southern Sierra, i.e., the Stanislaus, Tuolumne, Merced (North and South Forks), San Joaquin, Kaweah, Tule, and Kern rivers.	Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.
REPTILES			
California glossy snake *Arizona elegans occidentalis*	--/SSC/No	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California.	Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils
coast horned lizard *Phrynosoma blainvillii*	--/SSC/No	Historically found in California along the Pacific coast from the Baja California border west of the deserts and the Sierra Nevada, north to the Bay Area, and inland as far north as Shasta Reservoir, and south into Baja California.	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.
Giant garter snake *Thamnophis couchi gigas*	T/T/Yes	Central Valley from the vicinity of Burrel in Fresno County north to near Chico in Butte County; has been extirpated from areas south of Fresno	Sloughs, canals, low gradient streams and freshwater marsh habitats where there is a prey base of small fish and amphibians; they are also found in irrigation ditches and rice fields; requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter.
Northern California legless lizard *Anniella pulchra*	--/SSC/No	This lizard is common in suitable habitats in the Coast Ranges from Contra Costa County south to the Mexican border, but only has a spotty occurrence throughout the rest of its range, which includes the San Joaquin Valley to the west slope of the southern Sierra, the Tehachapi Mountains west of the desert and in the mountains of southern California.	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.
San Joaquin coachwhip	--/SSC/Yes	The San Joaquin coachwhip is endemic to California, ranging from Arbuckle in the Sacramento Valley in Colusa County	Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
Masticophis flagellum ruddocki		southward to the Grapevine in the Kern County portion of the San Joaquin Valley and westward into the inner South Coast Ranges.	the San Joaquin Valley. Needs mammal burrows for refuge and oviposition sites.
western pond turtle *Emys marmorata*	--/SSC/Yes	Southern Central Valley (San Joaquin clade), a limited region in Santa Barbara and Ventura counties (Santa Barbara clade), and a region south of the Tehachapi Mountains and west of the Tranverse ranges south to Baja California (Southern clade)	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying

STATUS EXPLANATIONS:

FEDERAL

E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
PE = PROPOSED FOR ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
PT = PROPOSED FOR THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
C = CANDIDATE SPECIES FOR LISTING UNDER THE FEDERAL ENDANGERED SPECIES ACT.
D = DELISTED FROM FEDERAL LISTING STATUS.
BCC = BIRD OF CONSERVATION CONCERN

STATE

E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
C = CANDIDATE SPECIES FOR LISTING UNDER THE STATE ENDANGERED SPECIES ACT.
FP = FULLY PROTECTED UNDER THE CALIFORNIA FISH AND GAME CODE.
WL = WATCH LIST UNDER THE CALIFORNIA FISH AND GAME CODE.
SSC = SPECIES OF SPECIAL CONCERN IN CALIFORNIA.

Invertebrates: There are three special-status invertebrates that are documented within a 10-mile radius of the Project site according to the CNDDB including: Molestan blister beetle (*Lytta molesta*), Sacramento anthicid beetle (*Anthicus sacramento*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). In addition, the Vernal pool fairy shrimp (*Branchinecta lynchi*) and Vernal pool tadpole shrimp (*Lepidurus packardi*) are documented in the USFWS IPAC database as potentially occurring within the region.

Vernal pool fairy shrimp (VPFS) 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. VPFS is not anticipated to be directly affected by any individual phase or component of the proposed Project because there in not appropriate vernal pool habitat on the Project site.

Vernal pool tadpole shrimp (VPTS) is a federal endangered invertebrate found in vernal pools and stock ponds from Shasta County south to Merced County. VPTS is not anticipated to be directly affected by any individual phase or component of the proposed Project because there in not appropriate vernal pool habitat on the Project site.

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). VELB is not anticipated to be directly affected by the proposed project.

Essential habitat for Molestan blister beetle and Sacramento anthicid beetle is not present on the Project site.

No special-status invertebrates are expected to be affected by the proposed project. Nevertheless, Mitigation Measure BIO-1 requires the Project proponent to seek coverage under the SJMSCP to

mitigate for habitat impacts to covered special status species. Coverage involves compensation for habitat impacts on covered species through implementation of incidental take and minimization measures (ITMMs) and payment of fees for conversion of lands that may provide habitat for covered special status species. These fees are used to preserve and/or create habitat in preserves to be managed in perpetuity. Obtaining coverage for a Project includes incidental take authorization (permits) under the Endangered Species Act Section 10(a), California Fish and Game Code Section 2081, and the MBTA. Coverage under the SJMSCP would fully mitigate all habitat impacts on covered special-status species.

Reptile and amphibian species: There is one special-status amphibian that is documented within a 10-mile radius of the Project site according to the CNDDB including: California tiger salamander (*Ambystoma californiense*). In addition, the California red-legged frog (*Rana aurora draytoni*) and Giant garter snake (*Thamnophis couchi gigas*) are documented in the USFWS IPAC database as potentially occurring within the region. There is no essential habitat for any of these three species within the Project.

No special-status reptiles or amphibians are expected to be affected by the proposed project. Nevertheless, Mitigation Measure BIO-1 requires the Project proponent to seek coverage under the SJMSCP to mitigate for habitat impacts to covered special status species. Coverage involves compensation for habitat impacts on covered species through implementation of incidental take and minimization measures (ITMMs) and payment of fees for conversion of lands that may provide habitat for covered special status species. These fees are used to preserve and/or create habitat in preserves to be managed in perpetuity. Obtaining coverage for a Project includes incidental take authorization (permits) under the Endangered Species Act Section 10(a), California Fish and Game Code Section 2081, and the MBTA. Coverage under the SJMSCP would fully mitigate all habitat impacts on covered special-status species.

Birds: Special-status birds that are documented in the CNDDB within a ten-mile radius of the Project site include: Aleutian goose (*Branta canadensis leucopareia*), Yellow-headed blackbird (*Xanthocephalus xanthocephalus*), Swainson's hawk (*Buteo swainsoni*), song sparrow (Modesto population) (*Melospiza melodia*), Merlin (*Falco columbarius*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), burrowing owl (*Athene cunicularia*), Tricolored blackbird (*Agelaius tricolor*). In addition, the bald eagle (*Haliaeetus leucocephalus*), black rail (*Laterallus jamaicensis*), fox sparrow (*Passerella iliaca*), least bittern (*Ixobrychus exilis*), lesser yellowlegs (*Tringa flavipes*), Lewis's woodpecker (*Melanerpes lewis*), loggerhead shrike (*Lanius ludovicianus*), long-billed curlew (*Numenius americanus*), marbeled godwit (*Limosa fedoa*), mountain plover (*Charadrius montanus*), Nuttalls woodpecker (*Picoides nuttallii*), oak titmouse (*Baeolophus inornatus*), peregrine falcon (*Falco peregrinus*), short-eared owl (*Asio flammeus*), western grebe (A*echmophorus occidentalis*), Williamson's sapsucker (*Sphyrapicus thyroideus*), and yellow-billed magpie (*Pica nuttalli*) are documented in the USFWS IPAC database as potentially occurring within the region. 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 very limited located within the Project site, but may be found in the vicinity. There are no mature trees on the Project site with the potential for raptor nests. The orchard trees can provide some nesting opportunities for a variety of birds, although the trees are pruned and harvested each year. 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.

Year-round birds: Special-status birds that can be present in the region throughout the year include: bald eagle (*Haliaeetus leucocephalus*), black rail (*Laterallus jamaicensis*), burrowing owl (*Athene cunicularia*), loggerhead shrike *(Lanius ludovicianus*), Nuttalls woodpecker (*Picoides*

nuttallii), oak titmouse (*Baeolophus inornatus*), song sparrow (Modesto population) (*Melospiza melodia*), tricolored blackbird *(Agelaius tricolor*), Williamson's sapsucker (*Sphyrapicus thyroideus*), yellow-billed magpie (*Pica nuttalli*), among others. Some of these species are migratory, but also reside year-round in California.

Summering Birds: Special-status birds that are only present in the region in the spring and summer months include: Aleutian goose (*Branta canadensis leucopareia*), least bittern (*Ixobrychus exilis*), Swainson's hawk (*Buteo swainsoni*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), and yellow-billed magpie (*Pica nuttalli*).

Overwintering Birds: Special-status birds that are only present in the region in the fall and winter months include: fox sparrow (*Passerella iliaca*), lesser yellowlegs (*Tringa flavipes*), Lewis's woodpecker (*Melanerpes lewis*), long-billed curlew (*Numenius americanus*), marbeled godwit (*Limosa fedoa*), merlin *(Falco columbarius*), mountain plover (*Charadrius montanus*), peregrine falcon (*Falco peregrinus*), short-eared owl (*Asio flammeus*), and western grebe (A*echmophorus occidentalis*).

Nesting Raptors (Birds of Prey): 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. Special-status raptors that are known to occur in the region include: bald eagle (*Haliaeetus leucocephalus*), burrowing owl (*Athene cunicularia*), Cooper's hawk *(Accipiter cooperii*), ferruginous hawk *(Buteo rega*), golden eagle *(Aquila chrysaetos*), great horned owl *(Bubo virginianus),* prairie falcon *(Falco mexicanus*), red-tailed hawk *(Buteo jamaicensis),* short-eared owl (*Asio flammeus*), Swainson's hawk *(Buteo swainsoni*), and white-tailed kite *(Elanus leucurus*), among others.

Analysis: While the Project site contains very limited nesting habitat, there are powerlines along Airport Avenue, as well as throughout the region. These represent potentially suitable nesting habitat for a variety of special-status birds. Additionally, the agricultural land on the eastern portion of the Project site represents potentially suitable nesting habitat for the ground-nesting birds where disturbance is less frequent. In general, most nesting occurs from late February and early March through late July and early August, depending on various environmental conditions. The CNDDB currently contains nesting records for Swainson's hawk and burrowing owl in the vicinity of the Project site. The orchard area is generally not used for Swainson's hawk foraging; however, the eastern portion of the Project site could be used for foraging. In addition to the species described above, common raptors such may nest in or adjacent to the Project site.

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 agricultural areas on the Project site, which serve as potential foraging habitat for birds throughout the year. Mitigation Measure BIO-1 requires participation in the SJMSCP. As part of the SJMSCP, SJCOG requires preconstruction surveys for projects that occur during the avian breeding season (March 1 – August 31). When active nests are identified, the biologists develop buffer zones around the active nests as deemed appropriate until the young have fledged. SJCOG also uses the fees to purchase habitat as compensation for the loss of foraging habitat. Implementation of the proposed project, with the Mitigation Measure BIO-1, would ensure that potential impacts to special status birds are reduced.

Mammal: Special-status mammals that are documented within a 10-mile radius of the Project site include: Riparian (San Joaquin Valley) woodrat (*Neotoma fuscipes riparia*), Riparian brush rabbit (*Sylvilagus bachmani riparius*), American badger (*Taxidea taxus*), and San Joaquin kit fox (*Vulpes macrotis mutica*).

Riparian (San Joaquin Valley) woodrat and riparian brush rabbit: The Project site does not contain appropriate habitat for riparian (San Joaquin Valley) woodrat and riparian brush rabbit.

American badger, San Joaquin kit fox, or San Joaquin pocket mouse: The Project site does not contain high quality habitat for the American badger. All but one of the documented occurrences of the San Joaquin kit fox occur on the southwest side of Tracy near the foothills with one documented occurrence located near Mountain House. The closest documented occurrence of San Joaquin pocket mouse is approximately five miles west of the Project site. It is unlikely that the Project site is used by American badger, San Joaquin kit fox, or San Joaquin pocket mouse and these species have not been observed during recent or previous field surveys.

Special-status bats: The Project site provides potential habitat for several special-status bats, including: Greater western mastiff bat (*Eumops perotis californicus*), western red bat (*Lasiurus blossevillii*), small-footed myotis/bat (*Myotis ciliolabrum*), long-eared myotis/bat (*Myotis evotis*), fringed myotis/bat (*Myotis thysanodes*), long-legged myotis/bat (*Myotis volans*), and Yuma myotis/bat (*Myotis yumanensis*). These species are not federal, or state listed; however, they are tracked by the CNDDB. Development of the Project site would eliminate foraging habitat for special status bats by removing the agricultural areas. Additionally, special status bats can establish roosts within the structures and/or trees located on the Project site. Bats can establish roosts even when absent in prior years. These special status bat species are covered by the SJMSCP.

Conclusion: No special-status species are expected to be affected by the proposed project. Nevertheless, Mitigation Measure BIO-1 requires the Project proponent to seek coverage under the SJMSCP to mitigate for habitat impacts to covered special status species. Coverage involves compensation for habitat impacts on covered species through implementation of incidental take and minimization Measures (ITMMs) and payment of fees for conversion of lands that may provide habitat for covered special status species. These fees are used to preserve and/or create habitat in preserves to be managed in perpetuity. Obtaining coverage for a Project includes incidental take authorization (permits) under the Endangered Species Act Section 10(a), California Fish and Game Code Section 2081, and the MBTA. Coverage under the SJMSCP would fully mitigate all habitat impacts on covered special-status species.

More specifically, the SJMSCP is administered by a Joint Powers Authority consisting of members of the SJCOG, the CDFW, and the USFWS. According to the SJMSCP, adoption and implementation by local planning jurisdictions provides full compensation and mitigation for impacts to plants, fish and wildlife. Adoption and implementation of the SJMSCP also secures compliance pursuant to the state and federal laws such as CEQA, the National Environmental Policy Act (NEPA), the Planning and Zoning Law, the State Subdivision Map Act, the Porter-Cologne Act and the Cortese-Knox Act in regard to species covered under the SJMSCP. Applicants pay mitigation fees on a per-acre basis. The entire County is mapped according to these categories so that landowners, project proponents and project reviewers are easily aware of the applicable SJMSCP fees for the proposed development. The appropriate fees are collected by the City and remitted to SJCOG for administration. SJCOG uses the funds to preserve open space land of comparable types throughout the County, often coordinating with other private or public land trusts to purchase conservation easements or buy land outright for preservation. The fees are automatically

adjusted on an annual basis. The fees have been designed to sufficiently mitigate the impacts of projects on candidate, sensitive, and special status species. Therefore, with implementation of Mitigation Measure BIO-1, the proposed Project would have a ***less than significant*** impact relative to this topic.

Mitigation Measure(s)

Mitigation Measure BIO-1*: Prior to commencement of any grading activities, the Project proponent shall seek coverage under the SJMSCP to mitigate for habitat impacts to covered special status species. Coverage involves compensation for habitat impacts on covered species through implementation of incidental take and minimization Measures (ITMMs) and payment of fees for conversion of lands that may provide habitat for covered special status species. These fees are used to preserve and/or create habitat in preserves to be managed in perpetuity. Obtaining coverage for a Project includes incidental take authorization (permits) under the Endangered Species Act Section 10(a), California Fish and Game Code Section 2081, and the MBTA. Coverage under the SJMSCP would fully mitigate all habitat impacts on covered special-status species.*

Responses b): There is no riparian habitat on the Project site. The CNDDB record search revealed documented occurrences of four sensitive habitats within 10 miles of the Project site including: Elderberry Savanna, Great Valley Cottonwood Riparian Forest, Great Valley Mixed Riparian Forest, and Great Valley Oak Riparian. None of these sensitive natural communities occur within the portion of the Project site. Implementation of the proposed Project would have a ***less than significant*** impact on riparian habitats or natural communities.

Response c): The Project site does not contain protected wetlands or other jurisdictional areas and there is no need for permitting associated with the federal or state Clean Water Acts. The irrigation ditches are man-made isolated facilities with the sole purpose of agricultural irrigation. These ditches are exempt from permitting. Absent any wetlands or jurisdictional waters, implementation of the proposed Project would have ***less than significant*** impact relative to this topic.

Response d): 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*), Central Valley steelhead (*Oncorhynchus mykiss*), Central Valley fall- /late fall-run Chinook salmon (*Oncorhynchus tshawytscha*), and Longfin smelt (*Spirinchus thaleichthys*). The closest major natural movement corridor for native fish that are documented in the region is the San Joaquin River, located to the west of the Project site. The land uses within the Project site would not have any direct disturbance to the San Joaquin River or its tributaries, and therefore, would not have any direct disturbance to the movement corridor or habitat.

The ongoing operational phase of the proposed Project requires discharge of stormwater into the City storm drainage system, which ultimately discharges into the Delta. The discharge of stormwater could result in indirect impacts to special status fish and wildlife if stormwater was not appropriately treated through BMPs prior to its discharge to the Delta. The Manteca Municipal Code Title 13 (Public Services) Chapter 13.28 (Stormwater Management and Discharges) establish minimum storm water management requirements and controls. Storm water drainage is managed through the implementation of best management practices to the extent they are technologically achievable to prevent and reduce pollutants. The City requires reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses. The management of water quality through BMPs is intended to ensure that water quality does not degrade to levels that would interfere or impede

fish or wildlife. Implementation of these required measures would ensure that this potential impact is reduced to a ***less than significant*** level.

Responses e): The proposed Project is subject to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The proposed Project does not conflict with the SJMSCP. Therefore, the proposed Project would have a ***less than significant*** impact relative to this topic. The mitigation measure presented in this Initial Study requires participation in the SJMSCP.

Responses f): The Resource Conservation Element of the General Plan establishes numerous policies and implementation measures related to biological resources as listed below:

Conservation Element Policies

RC-P-31. Minimize impact of new development on native vegetation and wildlife.

- ***Consistent****: This Initial Study includes an in-depth analysis of impacts for sensitive plants and wildlife, as well as habitat. Where impacts are identified, mitigation measures are presented to minimize, avoid, or compensate to the extent practicable.*

RC-P-33. Discourage the premature removal of orchard trees in advance of development, and discourage the removal of other existing healthy mature trees, both native and introduced.

- ***Consistent****: The proposed Project will require the removal of orchard trees. While the existing orchard is actively producing, it was planted in approximately 2000 making it a 21-year-old orchard. The orchard trees are almonds, which hit a plateau for yield at around 15 years and then slowly decline until they reach the end of their productive life at between 25 and 30 years. The existing orchard is nearing the end of its productive life which is anticipated to occur around 2025. Removing he orchard at this late stage of its cycle is not considered premature removal.*

RC-P-34. Protect special status species and other species that are sensitive to human activities.

- ***Consistent****: This Initial Study includes an in-depth analysis of impacts for sensitive plants and wildlife, as well as habitat. Where impacts are identified, mitigation measures are presented to minimize, avoid, or compensate to the extent practicable.*

RC-P-35. Allow contiguous habitat areas.

- ***Consistent****: Habitat areas in the vicinity of the Project site include agricultural plant communities which provide habitat for a variety of biological resources in the region. Agricultural areas occur throughout the region and are generally flat and well drained, and as a result are well suited for many crops. Alfalfa fields, hay, row crops, orchards, dominate the agricultural areas in the vicinity. The proposed Project does not require contiguous habitat areas to change or convert to another use.*

RC-P-36. Consider the development of new drainage channels planted with native vegetation, which would provide habitat as well as drainage.

- ***Consistent**: The proposed Project does not include new drainage channels, in part because drainage channels in populated areas present health and safety considerations given the presence of water and the potential for drowning.*

Municipal Code

The Manteca Municipal Code calls for the avoidance of heritage trees as defined under section 17.61.030. Heritage trees are any natural woody plant rooted in the ground and having a diameter of 30 inches or more when measured two feet above the ground.

Section 17.19.060 calls for the protection of all existing trees having a diameter of six inches or more when measured 4½ feet above the ground. The City planning department must be notified of planned construction or grade changes within the proximity of existing mature trees. Existing trees must be protected from construction equipment, machinery, grade changes, and excavation for utilities, paving, and footers. Replacement of existing trees is subject to approval from the planning director and must be with a minimum 24-inch box tree of compatible species for the development site and be consistent with Section 17.19.030.

Section 12.08.070 of the municipal code prohibits cutting, pruning, removing, injuring, or interference with any tree, shrub, or plant upon or in any street tree area or other public place in the City without prior approval from the superintendent. The City is authorized to grant such permission at their discretion and where necessary. Except for utility companies, as provided in Section 12.08.080, no such permission shall be valid for a longer period than 30 days after its issuance.

There are no heritage trees located on the Project site that are planned to be removed. The Project site contains orchard trees, all of which are in western portion of the project area. These trees are 21 years old and are nearing the end of their life cycle and will be removed. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

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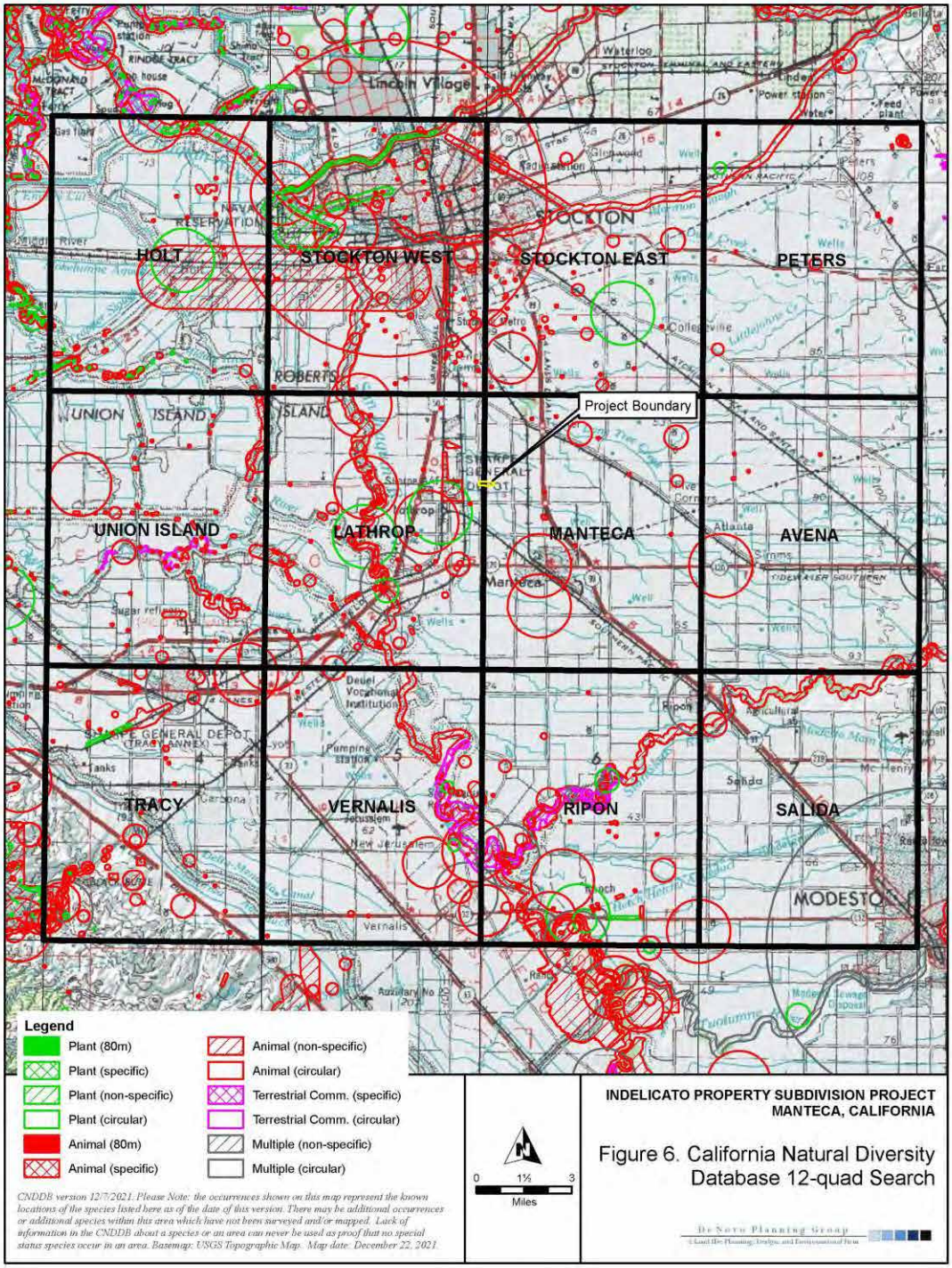
HOLT
STOCKTON WEST
STOCKTON EAST
PETERS
ROBERTS ISLAND
UNION ISLAND
LATHROP
MANTECA
AVENA
TRACY
VERNALIS
RIPON
SALIDA
MODESTO
Project Boundary
Legend
Plant (80m)
Plant (specific)
Plant (non-specific)
Plant (circular)
Animal (80m)
Animal (specific)
Animal (non-specific)
Animal (circular)
Terrestrial Comm. (specific)
Terrestrial Comm. (circular)
Multiple (non-specific)
Multiple (circular)
CNDDB version 12/7/2021. 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. Basemap: USGS Topographic Map. Map date: December 22, 2021
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Miles
INDELICATO PROPERTY SUBDIVISION PROJECT
MANTECA, CALIFORNIA
Figure 6. California Natural Diversity Database 12-quad Search
De Novo Planning Group

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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		

Responses to Checklist Questions

Responses a), b): A Cultural Resources Assessment was prepared by Peak & Associates on December 22, 2021. The Cultural Resources Assessment included an Information Center records search and a complete field survey of the Project site. Melinda A. Peak, senior historian/archeologist with Peak & Associates, Inc. served as principal investigator for the study, with archeologist Michael Lawson completing the field survey.

The Cultural Resources Assessment included a record search that was conducted for the current APE and a 0.25-mile radius at the Central California Information Center of the California Historical Resources Information System on October 25, 2021. There are no resources recorded in the Project site.

In the ¼-mile radius search area, a building complex consisting of a residence and a barn at 14580 Airport Way had been recorded as P-39-004994. The reviewer judged the complex to be not eligible for the California Register of Historical Resources.

The Project site is shown as included as part of report done for the Windmiller and Napoli in 2002 (SJ-04786). This is an overview, with limited survey, and most private property would not have been surveyed in 2002. One previous survey in 2004 may have covered the southern portion of the Project site. Several other linear studies have been conducted in the record search radius (complete citations in the Report List in Appendix 2 of the Cultural Report).

The property was surveyed on November 12, 2021 by Michael Lawson of Peak & Associates. The Cultural Resources Assessment identified no evidence of a historical resource. In addition, no evidence was found of prehistoric period use or occupancy of the property. 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, work in that part of the Project site shall be halted, and an archeologist should be consulted for on-the-spot evaluation of the finding.

Implementation of the following mitigation measure would require investigations and avoidance methods in the event that a previously undiscovered cultural resource is encountered during construction activities. With implementation of the following mitigation measure, development of the proposed Project would have a ***less than significant*** impact on historical and archaeological resources.

Mitigation Measure(s)

Mitigation Measure CUL-1: *The Project applicant shall ensure that a training session for all workers is conducted in advance of the initiation of construction activities at the site. The training session will provide information on recognition of artifacts, human remains, and cultural deposits to help in the recognition of potential issues.*

Mitigation Measure CUL-2: *The Project applicant shall retain a qualified archaeologist to observe initial ground disturbance activities, during initial grading. If artifacts, exotic rock, shell or bone are uncovered during the construction, the archaeologist will be able to document the finding, and determine if additional work is necessary to excavate or remove the artifacts or feature.*

Mitigation Measure CUL-3: *If cultural resources (i.e., prehistoric sites, historic sites, isolated artifacts/features, and paleontological sites) are discovered during construction, work shall be halted immediately within 50 meters (165 feet) of the discovery, the City of Manteca shall be notified, and a qualified archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology (or a qualified paleontologist in the event paleontological resources are found) shall be retained to determine the significance of the discovery. The City of Manteca shall consider recommendations presented by the professional for any unanticipated discoveries and shall carry out the measures deemed feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. Specific measures are developed based on the significance of the find.*

Response c): Indications are that humans have occupied the Central Valley for at least 10,000 years and it is not always possible to predict where human remains may occur outside of formal burials. Therefore, excavation and construction activities, regardless of depth, may yield human remains that may not be interred in marked, formal burials. Under CEQA, human remains are protected under the definition of archaeological materials as being "any evidence of human activity." Additionally, Public Resources Code Section 5097 has specific stop-work and notification procedures to follow in the event that human remains are inadvertently discovered during construction. Implementation of the following mitigation measure would reduce this potential impact to a ***less than significant*** level.

Mitigation Measure(s)

Mitigation Measure CUL-4: *If any human remains are found during grading and construction activities, all work shall be halted immediately within 50 meters (165 feet) of the discovery and 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 shall notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed. Additionally, if the Native American resources are identified, a Native American monitor, following the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites established by the Native American Heritage Commission, may also be required and, if required, shall be retained at the applicant's expense.*

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

Response a-b): 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 173 residential units. The amount of energy used at the Project site would directly correlate to the size of the proposed units, the energy consumption of associated unit 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.2020.4.0 and the California Air Resource Board's EMFAC2021). 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.

It should be noted that the existing energy usage of the Project site is not modeled, since existing baseline energy consumption would be greater than zero (i.e., the existing Project site does not produce more energy than it requires to operate). That is, the analysis focused on gross emissions, as opposed to net emissions. Therefore, the analysis provided herein for energy represents a conservative overestimate of the net increase in emissions and energy usage generated by the proposed project.

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 ENERGY-1, below

(as provided by CalEEMod). The proposed Project incorporates feasible mitigation to reduce the proposed project's operational electricity and natural gas consumption.

According to Calico's *Appendix A: Calculation Details for CalEEMod*, CalEEMod uses the California Commercial End Use Survey (CEUS) database to develop energy intensity value for non-residential buildings. The energy use from residential land uses is calculated based on the Residential Appliance Saturation Survey (RASS). Similar to CEUS, this is a comprehensive energy use assessment that includes the end use for various climate zones in California.

Table ENERGY-1: Project Operational Natural Gas and Electricity Usage

Emissions[a]	*Natural Gas (kBTU/year)*	*Electricity (kWh/year)*
Single Family Housing	4,092,970	1,367,980
Total	**4,092,970**	**1,367,980**

NOTE: [A] NUMBERS PROVIDED HERE MAY NOT ADD UP EXACTLY TO TOTAL DUE TO ROUNDING.
SOURCE: CALEEMOD (V.2020.4.0).

As shown in Table ENERGY-1, project operational energy usage would be reduced with implementation of project components considered mitigation by CalEEMod (note: given the limited mitigation options available in the current version of CalEEMod, the reduction attributable to mitigation represents a conservative analysis). These project components include installation of Energy Star appliances (consistent with the requirements under the current version of California's Building Energy Efficiency Standards), and compliance with the Model Water Efficient Landscape Ordinance (as contained in the California Code of Regulations and as prescribed in Chapter 17.48 of the Manteca Municipal Code). These reductions in overall proposed Project energy usage also reflect a reduction in the project's energy intensity.

On-Road Vehicles (Operation)

The proposed Project would generate vehicle trips during its operational phase. According to the Transportation Impact Analysis Report prepared for the proposed Project (Kittelson & Associates, 2021), the proposed Project would generate approximately 1,671 daily vehicles trips. 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 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. Using fleet mix data provide by CalEEMod (v2020.4.0), and Year 2022 gasoline and diesel MPG (miles per gallon) factors for individual vehicle classes as provided by EMFAC2021, De Novo derived weighted MPG factors for operational on-road vehicles of approximately 24.2 MPG for gasoline vehicles. 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 66 gallons of gasoline fuel per day, on average, or 23,955 gallons of fuel per year.

On-Road Vehicles (Construction)

The proposed Project would also generate on-road vehicle trips during project construction (from construction workers, vendors, and haulers). The Project site is essentially flat, and it is anticipated that the Project site can be balanced on site, meaning that there would be limited to no cut and fill (i.e., import/export).). 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 2022 gasoline MPG factors provided by EMFAC2021. 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 ENERGY-2, below, 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.

Table ENERGY-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)]*	*Total Hauling Trips[(a)]*	*Gallons of Gasoline Fuel[(b)]*	*Gallons of Diesel Fuel[(b)]*
Site Preparation	10	18	-	-	76	-
Grading	75	20	-	-	634	-
Building Construction	740	62	18	-	19,404	17,583
Paving	55	15	-	-	349	-
Architectural Coating	55	12	-	-	279	-
Total	**N/A**	**N/A**	**N/A**	**N/A**	**20,742**	**17,583**

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

SOURCE: CALEEMOD (V.2020.4.0); EMFAC2021.

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, generator sets, tractors, excavators, 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 up to a total of approximately 21,969 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 A.

Other

The 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 could require approximately four individuals one full day per week, or 1,644 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 832 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 similar project.

The proposed Project could also use other sources of energy not identified here. Examples of other energy sources include alternative and/or renewable energy (such as solar PV) and/or on-site stationary sources (such as on-site diesel generators) for electricity generation. However, the proposed Project does not propose to use other sources of energy at this time.

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% mix of renewable energy resources by 2020, and 50% 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) are improving 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 proposed Project including construction, operations, maintenance, and/or removal. PG&E, the electricity and natural gas provider to the Project site, maintains sufficient capacity to serve the proposed project. The proposed Project would comply with all existing energy standards, including those established by the City of Manteca, and would not result in significant adverse impacts on energy resources. Therefore, 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:			X	
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	

Responses to Checklist Questions

Responses a.i), a.ii), a.iv): The Project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, and known surface expression of active faults does not exist within the Project site. However, the Project site is located within a seismically active region. The U.S. Geological Survey identifies potential seismic sources within approximately 20 miles of the Project site. Two of the closest known faults classified as active by the U.S. Geological Survey are an unnamed fault east of the City of Tracy, located approximately 8 miles to the west, and the San Joaquin fault, located approximately 16 miles to the southwest. The Midway fault is located approximately 20 miles to the west. Other faults that could potentially affect the proposed Project

include the Corral Hollow-Carnegie fault, the Greenville fault, the Antioch fault, and the Los Positas fault.

Geologic 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. The common secondary seismic hazards include ground shaking and ground lurching.

Ground Rupture

Because the property does not have known active faults crossing the Project site, and the Project site is not located within an Earthquake Fault Special Study Zone, ground rupture is unlikely at the subject property.

Ground Shaking

According to the California Geological Survey's Probabilistic Seismic Hazard Assessment Program, Manteca is considered to be within an area that is predicted to have a 10 percent probability that a seismic event would produce horizontal ground shaking of 10 to 20 percent within a 50-year period. This level of ground shaking correlates to a Modified Mercalli intensity of V to VII, light to strong. As a result of these factors the California Geological Survey has defined the entire county as a seismic hazard zone. There will always be a potential for groundshaking caused by seismic activity anywhere in California, including the Project site.

In order to minimize potential damage to the buildings and site improvements, all construction in California is required to be designed in accordance with the latest seismic design standards of the California Building Code. The California Building Code, Title 24, Part 2, Chapter 16 addresses structural design and Chapter 18 addresses soils and foundations. Collectively, these state requirements, which have been adopted by the City of Manteca, include design standards and requirements that are intended to minimize impacts to structures in seismically active areas of California. Section 1613 specifically provides structural design standards for earthquake loads. Section 1803.5.11 and 1803.5.12 provide requirements for geotechnical investigations for structures assigned varying Seismic Design Categories in accordance with Section 1613. Design in accordance with these standards and policies would reduce any potential impact to a less than significant level.

Landslides

The Project site is not susceptible to landslides because the area is essentially flat. This is a less than significant impact.

Conclusion

In order to minimize potential damage to the buildings and site improvements, all construction in California is required to be designed in accordance with the latest seismic design standards of the California Building Code. The California Building Code, Title 24, Part 2, Chapter 16 addresses structural design and Chapter 18 addresses soils and foundations. Collectively, these state requirements, which have been adopted by the City of Manteca, include design standards and requirements that are intended to minimize impacts to structures in seismically active areas of California. Section 1613 specifically provides structural design standards for earthquake loads.

Section 1803.5.11 and 1803.5.12 provide requirements for geotechnical investigations for structures assigned varying Seismic Design Categories in accordance with Section 1613. Additionally, the City of Manteca has adopted Design and Construction Standards and incorporated numerous policies relative to seismicity to ensure the health and safety of all people. Design in accordance with these standards and policies would reduce any potential impact to a less than significant level. Because all development in the Project site must be designed in conformance with these state and local standards and policies, any potential impact would be considered ***less than significant***.

Responses a.iii), c), d): Liquefaction normally occurs when sites underlain by saturated, loose to medium dense, granular soils are subjected to relatively high ground shaking. During an earthquake, ground shaking may cause certain types of soil deposits to lose shear strength, resulting in ground settlement, oscillation, loss of bearing capacity, landsliding, and the buoyant rise of buried structures. The majority of liquefaction hazards are associated with sandy soils, silty soils of low plasticity, and some gravelly soils. Cohesive soils are generally not considered to be susceptible to liquefaction. In general, liquefaction hazards are most severe within the upper 50 feet of the surface, except where slope faces, or deep foundations are present.

Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement and distorting structural elements. Expansion is a typical characteristic of clay-type soils. Expansive soils shrink and swell in volume during changes in moisture content, such as a result of seasonal rain events, and can cause damage to foundations, concrete slabs, roadway improvements, and pavement sections.

Soil expansion is dependent on many factors. The more clayey, critically expansive surface soil and fill materials will be subjected to volume changes during seasonal fluctuations in moisture content. There are no expansive (i.e., shrink-swell) soils within the Project site. The soils encountered at the Project site consist of Timor loamy sandy (0-2% slopes) throughout the Project site.

Future development of the proposed Project could expose people or structures to adverse effects associated with liquefaction and/or soil expansion. Construction of the proposed Project would be required to comply with the City's General Plan policies related to geologic and seismic hazards. These policies obligate the City to require that new development mitigate the potential impacts of geologic hazards through building plan review (Policy S-P-2) and mitigate the potential impacts of seismic-induced settlement of uncompacted fill and liquefaction due to the presence of a high-water table (Policy S-P-2). To that end, General Plan Policy S-P-1 requires that all proposed development prepare geological reports and/or geological engineering reports for projects located in areas of potentially significant geological hazards, including potential subsidence (collapsible surface soils) due to groundwater extraction.

With implementation of the following mitigation measure, this potential impact would be ***less than significant***.

Mitigation Measure(s)

Mitigation Measure GEO-1*: Prior to issuance of any building permits, the Project applicant shall be required to submit building plans to the City of Manteca for review and approval. The building plans shall also comply with all applicable requirements of the most recent California Building Standards Code. All on-site soil engineering activities shall be conducted under the supervision of a licensed geotechnical engineer or certified engineering geologist.*

Response b): The Project site is currently vacant land except for the single-family residences along Oleander Avenue. According to the Project site plans prepared for the proposed project, development of the proposed Project would result in the creation of new impervious surface areas throughout the Project site. The development of the Project site would also cause ground disturbance of topsoil. The ground disturbance would be limited to the areas proposed for grading and excavation, including the proposed driveway areas, residential building pads, and drainage, sewer, and water infrastructure improvements. After grading and excavation, and prior to overlaying the disturbed ground surfaces with impervious surfaces and structures, the potential exists for wind and water erosion to occur, which could adversely affect downstream storm drainage facilities.

Without implementation of appropriate Best Management Practices (BMPs) related to prevention of soil erosion during construction, development of the proposed Project would result in a potentially significant impact with respect to soil erosion. Implementation of the following mitigation measures would ensure the impact is ***less than significant***.

Mitigation Measure(s)

Mitigation Measure GEO-2*: The Project applicant shall submit a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) to the RWQCB in accordance with the NPDES General Construction Permit requirements. The SWPPP shall be designed to control pollutant discharges utilizing Best Management Practices (BMPs) and technology to reduce erosion and sediments. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater runoff from the Project site. Measures shall include temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) that will be employed to control erosion from disturbed areas. Final selection of BMPs will be subject to approval by the City of Manteca and the RWQCB. The SWPPP will be kept on site during construction activity and will be made available upon request to representatives of the RWQCB.*

Response e): The proposed Project has been designed to connect to the existing City sewer system and septic systems will not be used. Therefore, ***no impact*** would occur related to soils incapable of adequately supporting the use of septic tanks.

Response f): Known paleontological resources or sites are not located on the Project site. Additionally, unique geologic features are not located on the Project site. 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 CLT-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 CLT-1, impacts to paleontological resources or unique geologic features are not expected. This is a ***less than significant*** impact.

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	

Existing Setting

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, including 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).

Greenhouse gases, 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).

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by the industrial sector (California Energy Commission, 2016).

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California produced 441 million gross metric tons of carbon dioxide equivalents ($MMTCO_2e$) in 2014 (California Energy Commission, 2016). By 2020, estimated business-as-usual greenhouse gas emissions in California are projected to be 509 $MMTCO_2e$ per year (California Air Resources Board, 2015). Given that the U.S. EPA estimates that worldwide emissions from human activities totaled nearly 46 billion gross metric tons of carbon dioxide equivalents ($BMTCO_2e$) in 2010, California's incremental contribution to global GHGs is approximately 2% (U.S. EPA, 2014).

Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the

greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2014, accounting for 37% of total GHG emissions in the state. This category was followed by the industrial sector (24%), the electricity generation sector (including both in-state and out of-state sources) (20%) and the agriculture sector (8%) (California Energy Commission, 2016).

Responses to Checklist Questions

Responses a), b): The SJVAPCD has evaluated different approaches for estimating impacts, and summarizing potential GHG emission reduction measures. The SJVAPCD staff has concluded that "*existing science is inadequate to support quantification of impacts that project specific GHG emissions have on global climatic change*." This is readily understood when one considers that global climatic change is the result of the sum total of GHG emissions, both man-made and natural that occurred in the past; that is occurring now; and will occur in the future. The effects of project specific GHG emissions are cumulative, and unless reduced or mitigated, their incremental contribution to global climatic change could be considered significant.

The *Guidance for Assessing and Mitigating Air Quality Impacts* (SJVAPCD, 2015) provides an approach to assessing a project's impacts on greenhouse gas emissions by evaluating the proposed Project's emissions to the "reduction targets" established in ARB's AB 32 Scoping Plan. For instance, the SJVACD's guidance recommends that projects should demonstrate that "*project specific GHG emissions would be reduced or mitigated by at least 29%, compared to Business as Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period, consistent with GHG emission reduction targets established in ARB's AB 32 Scoping Plan. Projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG*."

Subsequent to the SJVAPCD's approval of the *Final Draft Guidance for Assessing and Mitigating Air Quality Impacts* (SJVAPCD 2015), the California Supreme Court issued an opinion that affects the conclusions that should/should not be drawn from a GHG emissions analysis that is based on consistency with the AB 32 Scoping Plan. More specifically, in *Center for Biological Diversity v. California Department of Fish and Wildlife*, the Court ruled that showing a "project-level reduction" that meets or exceeds the Scoping Plan's overall statewide GHG reduction goal is not necessarily sufficient to show that the proposed Project's GHG impacts will be adequately mitigated: "*the Scoping Plan nowhere related that statewide level of reduction effort to the percentage of reduction that would or should be required from individual projects*..." According to the Court, the lead agency cannot simply assume that the overall level of effort required to achieve the statewide goal for emissions reductions will suffice for a specific project.

Given this Court decision, reliance on a 29 percent GHG emissions reduction from projected BAU levels compared to the proposed Project's estimated 2020 levels as recommended in the SJVAPCD's guidance documents is not an appropriate basis for an impact conclusion in the MND. Given that the SJVAPCD staff has concluded that "*existing science is inadequate to support quantification of impacts that project specific GHG emissions have on global climatic change,*" this MND instead relies on a qualitative approach for this analysis. The approach still relies on the Appendix G of the CEQA Guidelines thresholds which indicate that climate change-related

impacts are considered significant if implementation of the proposed Project would do any of the following:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

These two CEQA Appendix G threshold questions are provided within the Initial Study checklist and are the thresholds used for the subsequent analysis. The focus of the analysis is on the proposed Project's consistency with the relevant efficiency (i.e. per service population) threshold.

The proposed Project would generate GHGs during the construction and operational phases of the proposed project. The primary source of construction-related GHGs from the proposed Project would result from emissions of CO_2 associated with the construction of the proposed project, and worker vehicle trips. The proposed Project would require limited grading, and would also include site preparation, building construction, and architectural coating phases. The operational phase of the proposed Project would generate GHGs primarily from the proposed project's operational vehicle trips and building energy (electricity and natural gas) usage. Other sources of GHG emissions would be minimal. Proposed Project construction-related GHGs are provided in Table GHG-1, below. Proposed project operational-related GHGs are provided in Table GHG-2.

Table GHG-1: Construction GHG Emissions (Unmitigated Metric Tons/Yr)

Year	*Bio-CO_2*	*NBio-CO_2*	*Total CO_2*	*CH_4*	*N_2O*	*CO_2e*
2022	0	229.7737	229.7737	0.0723	2.3000e-004	231.6501
2023	0	455.1998	455.1998	0.0913	8.3400e-003	459.9680
2024	0	407.5892	407.5892	0.0739	8.1600e-003	411.8665
2025	0	326.9802	326.9802	0.0601	6.4900e-003	330.4175
Maximum	0	455.1998	455.1998	0.0913	8.3400e-003	459.9680

SOURCE: CALEEMOD (V.2020.4.0).

Table GHG-2: Operational GHG Emissions 2021 (Unmitigated Metric Tons/Yr)

Category	*Bio-CO_2*	*NBio-CO_2*	*Total CO_2*	*CH_4*	*N_2O*	*CO_2e*
Area	0.0000	77.0432	77.0432	3.4500e-003	1.3700e-003	77.5388
Energy	0.0000	344.9872	344.9872	0.0247	6.4900e-003	347.5367
Mobile	0.0000	1,630.0148	1,630.0148	0.0846	0.0826	1,656.7488
Waste	40.1191	0.0000	40.1191	2.3710	0.0000	99.3935
Water	3.5760	7.9443	11.5203	0.3686	8.8300e-003	23.3654
Total	43.6951	2,059.9894	2,103.6845	2.8523	0.0993	2,204.5830

SOURCE: CALEEMOD (V.2020.4.0).

A common threshold for GHGs is 4.6 MT CO2e/SP/year (residents+employees).[1] According to the 2020 U.S. Census, the population in Manteca is 83,498 people, and the average persons per household is 3.11. Therefore, the proposed Project would result in the construction of residential housing that would generate up to an estimated 538 people. Therefore, assuming a 30-year amortization of construction emissions, the combined project construction and operational GHG emissions would generate approximately 4.1 MT CO2e/SP/year, below the threshold of 4.6 MT CO2e/SP/year.

The proposed Project would not generate GHG emissions that would have a significant impact on the environment or conflict with any applicable plans, policies, or regulations. Since the proposed Project would be consistent with the City CAP, and would not exceed any relevant GHG threshold, impacts related to greenhouse gases are ***less than significant***.

[1] For example, the Bay Area Air Quality Management District (BAAQMD) has promulgated a threshold of 4.6 MT CO2e/SP/year (residents+employees). See Bay Area Air Quality Management District CEQA Guidelines, May 2017.

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	

Responses to Checklist Questions

Responses a), b): The proposed Project would create new residential uses on a site that is surrounded by existing residential, and agricultural uses. The proposed residential land uses do not routinely transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials, with the exception of common hazardous materials such as household cleaners, paint, engine oil, and similar household substances. The operational phase of the proposed Project does not pose a significant hazard to the public or the environment.

The Project site has historically been used for agricultural purposes. Like most agricultural operations in the Central Valley, agricultural practices in the area have used agricultural chemicals as a standard practice. Although no contaminated soils have been identified in the Project site or in the immediate vicinity above applicable levels, residual concentrations of pesticides may be present in soil as a result of historic agricultural and ranching activities. Additionally, although groundwater wells have not been identified on the Project site, there is a possibility that groundwater wells exist on-site. Should groundwater wells be present on-site, the proper well abandonment permit would need to be obtained.

The residences, outbuildings, barns and equipment storage areas located along the eastern side of the Project site are anticipated to remain intact on Lots E and F. However, if the structures are demolished, they will require evaluation for asbestos and lead containing materials. If such are demolished at some future time, special demolition and disposal practices are required in accordance with state regulations to ensure their safe handling. For instance, if asbestos or lead is present, there is a special demolition process, as well as special landfills that are permitted to accept such demolition debris. It should be noted that CEQA does not require that these hazardous materials must be tested and analyzed at the current time – only that adequate performance measures would be taken to reduce the potential for a significant hazard to the public or environment is generated during project activities (including demolition). However, if the asbestos or lead is not present, then the demolition process would not require any special handling. Additionally, existing areas containing storage of farm equipment would require soil sampling to assess the soils in these areas.

There are no known underground storage tanks or pipelines located on the Project site that contain hazardous materials. Therefore, the disturbance of such items during construction activities is unlikely. Construction equipment and materials would likely require the use of petroleum-based products (oil, gasoline, diesel fuel), and a variety of common chemicals including paints, cleaners, and solvents. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. Therefore, with implementation of the following mitigation measures (Mitigation Measures HAZ-1 through HAZ-2), the proposed Project would have a ***less than significant*** impact relative to this issue.

Mitigation Measure HAZ-1: *The Project applicant shall hire a qualified consultant to perform soil and site testing to check whether hazardous conditions are present, prior to any grading activities. The soil sampling shall address the presence/absence of hazardous substances in the soils, including agrichemicals and/or petroleum products. A soil sampling and analysis workplan shall be shall be prepared and meet the requirements of the Department of Toxic Substances Control Interim Guidance for Sampling Agricultural Properties (2008). The soils in the area where farming equipment and/or tanks have been stored should be included in the soil sampling and analysis workplan.*

If the sampling results indicate the presence of agrichemicals that exceed commercial screening levels, a removal action workplan shall be prepared in coordination with San Joaquin County Environmental Health Department. The removal action workplan shall include a detailed engineering plan for conducting the removal action, a description of the on-site contamination, the goals to be achieved by the removal action, and any alternative removal options that were considered and rejected and the basis for that rejection. A no further action letter shall be issued by San Joaquin County Environmental Health Department upon completion of the removal action. The removal action shall be deemed complete when the confirmation samples exhibit concentrations below the commercial screening levels, which will be established by the agencies.

If asbestos-containing materials and/or lead are found in the buildings, a California Occupational Safety and Health Administration (Cal/OSHA) certified asbestos containing building materials (ACBM) and lead based paint contractor shall be retained to remove the asbestos-containing materials and lead in accordance with EPA and Cal/OSHA standards. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with Cal/OSHA asbestos and lead worker construction standards. The ACBM and lead shall be disposed of properly at an appropriate offsite disposal facility.

Mitigation Measure HAZ-2 *Prior to initiation of any ground disturbance activities within 50 feet of a well, the Project applicant shall hire a licensed well contractor to obtain a well abandonment permit from San Joaquin County Environmental Health Department, and properly abandon the on-site wells, pursuant to review and approval of the City Engineer and the San Joaquin County Environmental Health Department.*

Response c): The Project site is located over ¼ mile from an existing school. The nearest schools include George McParkland Elementary (0.79 miles south) and East Union High School (0.91 miles southeast). Because the Project site is beyond the ¼-mile radius of a school, Implementation of the proposed Project would result in ***no impact*** relative to this topic.

Response d): According the California Department of Toxic Substances Control (DTSC) there are no Federal Superfund Sites, State Response Sites, or Voluntary Cleanup Sites on, or in the near vicinity of the Project site. The Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5. The nearest sites identified within these databases are located approximately 0.85 and 0.92 miles to the west and north of the Project site:

- Defense Distribution Depot San Joaquin – Sharpe Site (site CA8210020832): This site is a hazardous waste facility, which has a current status of Undergoing Closure. Operations at DDRW-Sharpe generate various types of hazardous wastes which are stored in containers on-site in Building 605. When a sufficient quantity of hazardous waste has accumulated, a contractor transfers the waste off-site to an approved treatment and/or disposal facility.

- Sharpe Army Depot (39970002): This site was previously known as Sharpe Army Depot and was operated by the U.S. Army. Defense Distribution Depot San Joaquin California (DDJC)-Sharpe was established in 1941 and consists of 727 acres. The Sharpe facility was listed on the federal National Priorities List in July 1987. On July 19, 1989, the U.S. Army, U.S.EPA, the RWQCB, and DTSC entered into a Federal Facility Agreement (FFA) for Sharpe. Past disposal sites include burial areas, burn pits, fire training areas, and leaking underground storage tanks. Soil and groundwater contamination by volatile organic compounds (VOCs), primarily trichloroethylene (TCE) and perchloroethylene (PCE), has been found at the site. Presently, two offsite TCE plumes can be found west of the Central Area as well as in the North Balloon. Elevated arsenic concentrations have also been detected in the soils and groundwater at Sharpe. Lead and chromium contamination has also been found in the soil. DDJC--Sharpe completed its Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Five-Year Review in July of 2020.

The Project site is not directly affected by these sites. Implementation of the proposed Project would result in a ***less than significant*** impact relative to this environmental topic.

Response e): The Federal Aviation Administration (FAA) establishes distances of ground clearance for take-off and landing safety based on such items as the type of aircraft using the airport. The Project site is not located within the vicinity of a private airstrip or public airport. The closest airport or airstrip is the Stockton Metropolitan Airport, located approximately 3.7 miles north of the Project site. Implementation of the proposed Project would have a ***less than significant*** impact with regards to this environmental issue.

Response f): The Office of Emergency Services (OES) maintains an Emergency Operations Plan (EOP) that serves as the official Emergency Plan for San Joaquin County. It includes planned operational functions and overall responsibilities of County Departments during an emergency situation. The Emergency Plan also contains a threat summary for San Joaquin County, which

addresses the potential for natural, technological and human-caused disasters (County Code, Title 4-3007).

The County OES also prepared a Hazardous Materials Area Plan (§2720 H&S, 2008) that describes the hazardous materials response system developed to protect public health, prevent environmental damage and ensure proper use and disposal of hazardous materials. The plan establishes effective response capabilities to contain and control releases, establishes oversight of long-term cleanup and mitigation of residual releases, and integrates multi-jurisdiction and agency coordination. This plan is now implemented by the San Joaquin County Environmental Health Department.

The San Joaquin County Environmental Health Department maintains a Hazardous Materials Management Plan/ Hazardous Materials Business Plan (HMMP/HMBP). The HMMP/HMBP describes agency roles, strategies and processes for responding to emergencies involving hazardous materials. The Environmental Health Department maintains a Hazardous Materials Database and Risk and Flood Maps available to the public on its website.

In San Joaquin County, all major roads are available for evacuation, depending on the location and type of emergency that arises. The proposed Project does not include any actions that would impair or physically interfere with any of San Joaquin County's emergency plans or evacuation routes. Future uses on the Project site will have access to the County resources that establish protocols for safe use, handling and transport of hazardous materials. Construction activities are not expected to result in any unknown significant road closures, traffic detours, or congestion that could hinder the emergency vehicle access or evacuation in the event of an emergency. Implementation of the proposed Project would have a ***less than significant*** impact with regards to this environmental issue.

Response g): 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 City has areas with an abundance of flashy fuels (i.e., grassland) in the outlying residential parcels and open lands that, when combined with warm and dry summers with temperatures often exceeding 100 degrees Fahrenheit, create a situation that results in higher risk of wildland fires. Most wildland fires are human caused, so areas with easy human access to land with the appropriate fire parameters generally result in an increased risk of fire.

The City of Manteca contains areas with "moderate" and "non-wildland fuel" ranks. The areas warranting "moderate" fuel ranks possess combustible material in sufficient quantities combined with topographic characteristics that pose a wildfire risk. CalFire data for the areas immediately surrounding the Project site also include "moderate" and "non-wildland fuel" ranks. Areas west of Interstate 5, approximately 15 miles or further southwest of the Planning Area, are designated as "moderate" and "high" fuel ranks. The Project site is located in an area with a "Local Responsibility Zone (LRA) Unzoned" rank. The Project site is also not located on a steep slope, and the Project site is essentially flat. The Project site is also located in an urban area, with existing or future urban development located on all sides. Therefore, this is a ***less than significant*** impact and no mitigation is required.

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:				
(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	

Responses to Checklist Questions

Response a): Implementation of proposed Project would not violate any water quality or waste discharge requirements. Construction activities including grading could temporarily increase soil erosion rates during and shortly after project construction. Construction-related erosion could result in the loss of soil and could adversely affect water quality in nearby surface waters. The RWQCB requires a project-specific SWPPP to be prepared for each project that disturbs an area one acre or larger. The SWPPP is required to include project specific best management measures that are designed to control drainage and erosion. Mitigation Measure GEO-2 would require the preparation of a SWPPP to ensure that the proposed Project prepares and implements a SWPPP throughout the construction phase of the proposed Project. The SWPPP (Mitigation Measure GEO-2) and the project specific drainage plan would reduce the potential for the proposed Project to violate water quality standards during construction. Implementation of the proposed Project would result in a ***less than significant*** impact relative to this topic.

Response b): The proposed Project would connect to the City of Manteca water system. The City's municipal water supply includes deliveries from the South San Joaquin Irrigation District's (SSJID) South County Water Supply Program (SCWSP), and local groundwater pumped from the City's wells.

The proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted). With the exception of the sliver of the Project site designated as PQP (which is no longer needed by MUSD), the City's 2023 General Plan designates the Project site as LDR which allows for residential densities of up to 8 dwelling units per acre. Therefore, the City's 2023 General Plan anticipated up to 320 units and an associated population of approximately 995 persons within the Project site.

Project construction would add additional impervious surfaces to the Project site; however, various areas of the Project site would remain largely pervious, which would allow infiltration to underlying groundwater. For example, the proposed Project proposes to include a dual use park/drainage basin within the central-northern portion of the Project site (see Figure 3). Additionally, the proposed Project includes landscaping areas that would remain pervious. These areas would continue to contribute to groundwater recharge following construction of the proposed Project. Furthermore, the proposed Project is not anticipated to significantly affect groundwater quality because sufficient stormwater infrastructure would be constructed as part of project to detain and filter stormwater runoff and prevent long-term water quality degradation. Therefore, project construction and operation would not substantially deplete or interfere with groundwater supply or quality. This impact would be ***less than significant***.

Responses c.i), c.ii), c.iii), e): When land is in a natural or undeveloped condition, soils, mulch, vegetation, and plant roots absorb rainwater. This absorption process is called infiltration or percolation. Much of the rainwater that falls on natural or undeveloped land slowly infiltrates the soil and is stored either temporarily or permanently in underground layers of soil. When the soil becomes completely soaked or saturated with water or the rate of rainfall exceeds the infiltration capacity of the soil, the rainwater begins to flow on the surface of land to low lying areas, ditches, channels, streams, and rivers. Rainwater that flows off a site is defined as storm water runoff. When a site is in a natural condition or is undeveloped, a larger percentage of rainwater infiltrates into the soil and a smaller percentage flow off the Project site as storm water runoff.

The infiltration and runoff process is altered when a site is developed. Buildings, sidewalks, roads, and parking lots introduce asphalt, concrete, and roofing materials to the landscape. These materials are relatively impervious, which means that they absorb less rainwater. As impervious surfaces are added to the ground conditions, the natural infiltration process is reduced. As a result, the volume and rate of storm water runoff increases. The increased volumes and rates of storm water runoff can result in flooding if adequate storm drainage facilities are not provided.

There are no rivers, streams, or water courses located on or immediately adjacent to the Project site. As such, there is no potential for the proposed Project to alter a water course, which could lead to on or offsite flooding. Drainage improvements associated with the Project site would be located on the Project site, and the proposed Project would not alter or adversely impact offsite drainage facilities.

The proposed Project would increase impervious surfaces throughout the Project site. The proposed Project would require the installation of storm drainage infrastructure to ensure that storm waters properly drain from the Project site. The proposed storm drainage plan includes an engineered network of storm drain lines, manholes, inlets, and a water quality basin. The storm drainage plan was designed and engineered to ensure proper construction of storm drainage infrastructure to control runoff and prevent flooding, erosion, and sedimentation. The City Engineer reviews all storm drainage plans as part of the improvement plan submittal to ensure that all facilities are designed to the City's standards and specifications. The City Engineer also reviews all storm drainage plans to ensure that post-project runoff does not exceed pre-project runoff. The City Engineer's review of pre- and post-project runoff is intended to ensure that the capacity of the existing storm drainage system is not exceeded. This determination is ultimately made by the City Engineer during the improvement plan review and approval.

Additionally, the proposed Project is subject to the requirements of Chapter 13.28 of the Manteca Municipal Code – Stormwater Management and Discharge Control. The purpose of these requirements is to "establish minimum storm water management requirements and controls to protect and safeguard the general health, safety and welfare of the public residing in watersheds within the city of Manteca". These requirements are intended to assist in the protection and enhancement of the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act (Clean Water Act, 33 USC Section 1251 et seq.), Porter- Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) and National Pollutant Discharge Elimination System ("NPDES") Permit No. CAS000004, as such permit is amended and/or renewed.

The proposed Project 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, in a manner that would result in substantial erosion or siltation, substantially increase the rate or amount of surface runoff in a manner that would result in flooding, or create or contribute runoff water which would exceed the capacity or existing or planned drainage systems or provide substantial additional sources of polluted runoff. The proposed Project would also not conflict with any water control quality plan or sustainable groundwater management plan. With implementation of the following mitigation measures, the proposed Project would have a ***less than significant*** impact relative to this environmental topic.

Response d): The Project site is located outside the 100, 200, and 500-year flood zone. The Project site is categorized as an area with minimal risk of flooding.

The risks of flooding hazards on the Project site and immediate surroundings are primarily related to large, infrequent storm events. These risks of flooding 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.

Further, in 2007, the State of California passed a series of laws referred to as Senate Bill (SB) 5 directing the Department of Water Resources (DWR) to prepare flood maps for the Central Valley flood system and the State Plan of Flood Control, which includes a system of levees and flood control facilities located in the Central Valley. This legislation also set specific locations within the area affected by the 200-year flood event as the urban level of flood protection (ULOP) for the Central Valley.

SB5 "requires all cities and counties within the Sacramento-San Joaquin Valley, as defined in California Government Code Sections 65007(h) and (j), to make findings related to an ULOP or national Federal Emergency Management Agency (FEMA) standard of flood protection before: (1) entering into a development agreement for any property that is located within a flood hazard zone; (2) approving a discretionary permit or other discretionary entitlement, or ministerial permit that would result in the construction of a new residence, for a project that is located within a flood hazard zone; or (3) approving a tentative map, or a parcel map for which a tentative map was not required, for any subdivision that is located within a flood hazard zone." In 2016, the City of Manteca approved a Memorandum of Understanding to pursue 200-year urban level of flood protection to satisfy SB 5.

The Project site is located within a dam inundation area for the New Melones 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. 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 expose people or structures to a significant risk of loss, injury or death involving flooding as a result of the failure of a levee or dam.

The Project site is not anticipated to be inundated by a tsunami because it is located at an elevation of approximately 24 to 26 feet above sea level and is approximately 60 miles away from the Pacific Ocean which is the closest ocean waterbody.

The Project site is not anticipated to be inundated by a seiche because it is not located in close proximity to a water body capable of creating a seiche.

Implementation of the proposed Project would have a ***less than significant*** impact relative to the risk of release of pollutants due to project inundation by flood hazards, seiches, and tsunamis, or the potential to alter the course of a stream or river in a manner that would impede or redirect flood flows.

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	

Responses to Checklist Questions

Response a): The Project site is located immediately adjacent to the Manteca city limits. The proposed Project is consistent with the surrounding uses and would not physically divide an established community. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Response b): The key planning documents that are directly related to, or that establish a framework within which the proposed Project must be consistent, include:

- City of Manteca General Plan; and
- City of Manteca Zoning Ordinance.

The project site is designated LDR (Low Density Residential) by the Manteca General Plan land use map. The City's LDR land use establishes a mix of dwelling unit types and character determined by the individual site and market conditions. The density range allows substantial flexibility in selecting dwelling unit types and parcel configurations to suit particular site conditions and housing needs. The type of dwelling units anticipated in this density range include small lots and clustered lots as well as conventional large lot detached residences. The allowed density within the City's LDR designation is 2.1 to 8 dwelling units per acre. With 173 units on approximately 40 acres, the proposed density would be 4.3 dwelling units per acre, which is within the allowed density range.

As was noted in the Project Description, there is also a small silver of Public Quasi Public (PQP) land use designated along the northern boundary of the Project site. This sliver is part of a square shaped site that was designated for a potential school during the previous General Plan Update in 2008. The extension of this square PQP land use into the Project site did not recognize the parcel line. Project Applicant has consulted with Manteca Unified School District, and they have stated that the sliver of PQP land on the Project site would "not be the preferred location" for a school. Additionally, the General Plan Update, while not yet approved, has removed this PQP land use from this location due to the School District not showing interest in building a school in this location. Because the General Plan Update is not yet approved with the change of land use from PQP to LDR, it is necessary to process a General Plan Amendment that would change the land use on the entire Project site to LDR. MUSD has confirmed that they "do not have an issue" with Project Applicant proceeding with a General Plan Amendment. Figure 4 illustrates the existing General Plan land uses.

The San Joaquin County Local Agency Formation Commission (LAFCo) will require the project site to be pre-zoned by the City of Manteca in conjunction with the proposed annexation. The City's pre-zoning for the entire site will be R-1 (One Family Dwelling), which is consistent with the LDR (Low Density Residential) land use designation of the Manteca General Plan. This zoning

district allows for substantial flexibility in selecting dwelling unit types and parcel configurations to suit site conditions and housing needs.

The proposed Project would require a prezoning of the land, which would go into effect upon annexation of the land. The proposed Project would not 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. Implementation of the proposed Project would have a ***less than significant*** relative to this topic.

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	

Existing Setting

The California Geological Survey identifies areas that contain or that could contain significant mineral resources so as to provide context for local agency land use decisions and to protect availability of known mineral resources. Classifications ranging from MRZ-1 to MRZ-4 are based on knowledge of a resource's presence and the quality of the resource. No mineral extraction operations are known to exist in or adjacent to the Project site. The Project site is not in a designated Mineral Resource Zone as delineated by the Mineral Resources and Mineral Hazards Mapping Program (MRMHMP) (California Department of Conservation, 2012).

Responses to Checklist Questions

Responses a), b): The Project site is not in a designated Mineral Resource Zone as delineated by the Mineral Resources and Mineral Hazards Mapping Program (MRMHMP). The proposed Project activities would not result in substantial subsurface excavation and would not preclude future exploration for, and extraction of, mineral resources since the proposed use would be decommissioned in the long-term. Therefore, the proposed Project would not result in the loss of an available known mineral resources nor result in the loss of availability of locally-important mineral resource recovery sites delineated in a local general plan, specific plan, or other land use plan. Additionally, there are no oil and gas extraction wells within or near the property. Therefore, the impact is ***less than significant*** to this environmental topic.

XIII. NOISE

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*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

Existing Ambient Noise Levels

To quantify the existing ambient noise environment in the Project Vicinity, a continuous (24-hour) noise level measurement was conducted on the project site on November 10th – November 11th, 2021. The noise measurement location is shown on Figure 3.11-1 of the Noise Study in the Appendix C. The noise level measurement survey results are provided in Table Noise-1. Appendix B of the Noise Study shows the complete results of the noise monitoring survey.

The sound level meters were programmed to collect hourly noise level intervals at each site during the survey. The maximum value (L_{max}) represents the highest noise level measured during an interval. The average value (L_{eq}) represents the energy average of all of the noise measured during an interval. The median value (L_{50}) represents the sound level exceeded 50 percent of the time during an interval.

TABLE NOISE-1: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

SITE	*LOCATION*	*DATE/TIME*	L_{DN}	*AVERAGE MEASURED HOURLY NOISE LEVELS, DB*					
				DAYTIME (7AM-10PM)			*NIGHTTIME (10PM-7AM)*		
				L_{EQ}	L_{50}	L_{MAX}	L_{EQ}	L_{50}	L_{MAX}
Continuous (24-hour) Noise Level Measurements1									
LT-1	East side of Project Area, 17 yds to Airport Way Median	11/10/2021-11/11/2021	75	71	66	88	68	60	85

SOURCE: SAXELBY ACOUSTICS, 2021.

A Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meter was used for the ambient noise level measurement survey. The meter was calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements.

The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

Existing and Future Traffic Noise Environment at Sensitive Receptors

Off-Site Traffic Noise Impact Assessment Methodology: To predict existing and cumulative noise levels due to traffic, the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions.

Traffic volumes for existing conditions were obtained from the traffic data prepared for the Project (Kittelson & Associates, 2022). Truck percentages and vehicle speeds on the local area roadways were estimated from field observations.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each Project-area roadway segment. Where traffic noise barriers are predominately along a roadway segment, a -5 offset was added to the noise prediction model to account for various noise barrier heights. A -5 to dB offset was also applied where outdoor activity areas are shielded by intervening buildings. In some locations, sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the Project-area roadway segments analyzed in this report.

Table Noise-2 shows the existing traffic noise levels in terms of L_{dn} at closest sensitive receptors along each roadway segment. A complete listing of the FHWA Model input data is contained in Appendix C of the Noise Study.

TABLE NOISE-2: EXISTING TRAFFIC NOISE LEVELS

ROADWAY	*SEGMENT*	*EXTERIOR TRAFFIC NOISE LEVEL, DB L_{DN}*
Spartan Way	West of I-5	56.3
W Lathrop Road	East of I-5	65.7
W Lathrop Road	East of Airport Way	68.2
Airport Way	North of Lathrop Road	65.7
Airport Way	South of Lathrop Road	62.0
Lathrop Road	West of Airport Way	67.3
Main Street	South of Lathrop Road	64.6
Lathrop Road	West of Hwy 99	64.4
Airport Way	North of Roth Road	61.8
Roth Road	West of Airport Way	57.6
Airport Way	South of Louise Ave.	61.5
Louise Ave.	West of Airport Way	63.8
W Yosemite Ave.	East of Airport Way	66.7
Airport Way	North of W Yosemite Ave.	65.1
Airport Way	South of W Yosemite Ave.	64.4

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KITTELSON & ASSOCIATES AND SAXELBY ACOUSTICS. 2022.

Predicted Exterior Traffic Noise Levels: Implementation of the proposed Project would result in an increase in ADT volumes on the local roadway network, and consequently, an increase in noise levels from traffic sources along affected segments. Tables Noise-3 and Noise-4 show the predicted traffic noise level increases on the local roadway network for Existing, Existing + Project, Cumulative No Project, and Cumulative + Project conditions. Appendix C of the Noise Study provides the complete inputs and results of the FHWA traffic noise modeling.

TABLE NOISE-3: EXISTING AND EXISTING PLUS PROJECT TRAFFIC NOISE LEVELS

		NOISE LEVELS (L_{DN}, dB) AT NEAREST SENSITIVE RECEPTORS				
		EXISTING	*EXISTING + PROJECT*	*CHANGE*	*EX. GP CRITERIA*[1]	*SIGNIFICANT UNDER EX. GP?*
ROADWAY	*SEGMENT*				*PROPOSED GP CRITERIA*[2]	*SIGNIFICANT UNDER GP UPDATE?*
Spartan Way	West of I-5	56.3	56.3	0.0	>60 dBA	No
					+5 dBA	No
W Lathrop Road	East of I-5	65.7	65.8	0.1	+5-10 dBA	No
					+ 1.5 dBA	No
W Lathrop Road	East of Airport Way	68.2	68.3	0.1	+5-10 dBA	No
					+ 1.5 dBA	No
Airport Way	North of Lathrop Road	65.7	66.3	0.6	+5-10 dBA	No
					+ 1.5 dBA	No
Airport Way	South of Lathrop Road	62.0	62.2	0.2	+5-10 dBA	No
					+ 3 dBA	No
Lathrop Road	West of Airport Way	67.3	67.4	0.1	+5-10 dBA	No
					+ 1.5 dBA	No
Main Street	South of Lathrop Road	64.6	64.6	0.0	+5-10 dBA	No
					+3 dBA	No
Lathrop Road	West of Hwy 99	64.4	64.5	0.1	+5-10 dBA	No
					+ 3 dBA	No
Airport Way	North of Roth Road	61.8	61.9	0.1	+5-10 dBA	No
					+ 3 dBA	No
Roth Road	West of Airport Way	57.6	57.8	0.2	>60 dBA	No
					+ 5 dBA	No
Airport Way	South of Louise Ave.	61.5	61.6	0.1	+5-10 dBA	No
					+ 3 dBA	No
Louise Ave.	West of Airport Way	63.8	63.8	0.0	+5-10 dBA	No
					+ 3 dBA	No
W Yosemite Ave.	East of Airport Way	66.7	66.8	0.1	+5-10 dBA	No
					+ 1.5 dBA	No
Airport Way	North of W Yosemite Ave.	65.1	65.2	0.1	+5-10 dBA	No
					+ 1.5 dBA	No
Airport Way	South of W Yosemite Ave.	64.4	64.5	0.1	+5-10 dBA	No
					+ 3 dBA	No

[1] *EXISTING GP CRITERIA - IN MAKING A DETERMINATION OF IMPACT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), A SUBSTANTIAL INCREASE WILL OCCUR IF AMBIENT NOISE LEVELS ARE INCREASED BY 10 DB OR MORE. AN INCREASE FROM 5-10 DB MAY BE SUBSTANTIAL. FACTORS TO BE CONSIDERED IN DETERMINING THE SIGNIFICANCE OF INCREASES FROM 5-10 DB INCLUDE:*

- *THE RESULTING NOISE LEVELS*
- *THE DURATION AND FREQUENCY OF THE NOISE*
- *THE NUMBER OF PEOPLE AFFECTED*
- *THE LAND USE DESIGNATION OF THE AFFECTED RECEPTOR SITES*
- *PUBLIC REACTIONS/CONTROVERSY AS DEMONSTRATED AT WORKSHOPS/HEARINGS, OR BY CORRESPONDENCE*

- *PRIOR CEQA DETERMINATIONS BY OTHER AGENCIES SPECIFIC TO THE PROJECT*

[2] PROPOSED GP CRITERIA - IN MAKING A DETERMINATION OF IMPACT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), A SUBSTANTIAL INCREASE WILL OCCUR IF AMBIENT NOISE LEVELS HAVE A SUBSTANTIAL INCREASE. GENERALLY, A 3 DB INCREASE IN NOISE LEVELS IS BARELY PERCEPTIBLE, AND A 5 DB INCREASE IN NOISE LEVELS IS CLEARLY PERCEPTIBLE. THEREFORE, INCREASES IN NOISE LEVELS SHALL BE CONSIDERED TO BE SUBSTANTIAL WHEN THE FOLLOWING OCCURS:

- *WHEN EXISTING NOISE LEVELS ARE LESS THAN 60 DB, A 5 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL;*
- *WHEN EXISTING NOISE LEVELS ARE BETWEEN 60 DB AND 65 DB, A 3 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL;*
- *WHEN EXISTING NOISE LEVELS EXCEED 65 DB, A 1.5 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL.*

SOURCE: FHWA-RD-77-108 (WITH INPUTS FROM KITTELSON & ASSOCIATES AND SAXELBY ACOUSTICS). 2022.

TABLE NOISE-4: CUMULATIVE AND CUMULATIVE + PROJECT TRAFFIC NOISE LEVELS

		NOISE LEVELS (L_{DN}, DB) AT NEAREST SENSITIVE RECEPTORS				
		CUMULATIVE	CUMULATIVE + PROJECT	CHANGE	EX. GP CRITERIA[1]	SIGNIFICANT UNDER EX. GP?
ROADWAY	SEGMENT				PROPOSED GP CRITERIA[2]	SIGNIFICANT UNDER GP UPDATE?
Spartan Way	West of I-5	64.7	64.7	0.0	+5-10 dBA	No
					+ 3 dBA	No
W Lathrop Road	East of I-5	69.9	69.9	0.0	+5-10 dBA	No
					+ 1.5 dBA	No
W Lathrop Road	East of Airport Way	72.1	72.1	0.0	+5-10 dBA	No
					+ 1.5 dBA	No
Airport Way	North of Lathrop Road	68.8	69.1	0.3	+5-10 dBA	No
					+ 1.5 dBA	No
Airport Way	South of Lathrop Road	65.2	65.3	0.1	+5-10 dBA	No
					+ 1.5 dBA	No
Lathrop Road	West of Airport Way	71.4	71.4	0.0	+5-10 dBA	No
					+ 1.5 dBA	No
Main Street	South of Lathrop Road	65.4	65.5	0.1	+5-10 dBA	No
					+ 1.5 dBA	No
Lathrop Road	West of Hwy 99	67.3	67.4	0.1	+5-10 dBA	No
					+ 1.5 dBA	No
Airport Way	North of Roth Road	65.2	65.2	0.0	+5-10 dBA	No
					+ 1.5 dBA	No
Roth Road	West of Airport Way	60.0	60.1	0.1	+5-10 dBA	No
					+ 3 dBA	No
Airport Way	South of Louise Ave.	65.3	65.3	0.0	+5-10 dBA	No
					+ 1.5 dBA	No
Louise Ave.	West of Airport Way	69.1	69.1	0.0	+5-10 dBA	No
					+ 1.5 dBA	No
W Yosemite Ave.	East of Airport Way	68.7	68.8	0.1	+5-10 dBA	No
					+ 1.5 dBA	No
Airport Way	North of W Yosemite Ave.	68.5	68.5	0.0	+5-10 dBA	No
					+ 1.5 dBA	No
Airport Way	South of W Yosemite Ave.	67.7	67.7	0.0	+5-10 dBA	No
					+ 1.5 dBA	No

[1] EXISTING GP CRITERIA - IN MAKING A DETERMINATION OF IMPACT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), A SUBSTANTIAL INCREASE WILL OCCUR IF AMBIENT NOISE LEVELS ARE INCREASED BY 10 DB OR MORE. AN INCREASE FROM 5-10 DB MAY BE SUBSTANTIAL. FACTORS TO BE CONSIDERED IN DETERMINING THE SIGNIFICANCE OF INCREASES FROM 5-10 DB INCLUDE:

- *THE RESULTING NOISE LEVELS*
- *THE DURATION AND FREQUENCY OF THE NOISE*
- *THE NUMBER OF PEOPLE AFFECTED*
- *THE LAND USE DESIGNATION OF THE AFFECTED RECEPTOR SITES*
- *PUBLIC REACTIONS/CONTROVERSY AS DEMONSTRATED AT WORKSHOPS/HEARINGS, OR BY CORRESPONDENCE*
- *PRIOR CEQA DETERMINATIONS BY OTHER AGENCIES SPECIFIC TO THE PROJECT*

[2] *PROPOSED GP CRITERIA - IN MAKING A DETERMINATION OF IMPACT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), A SUBSTANTIAL INCREASE WILL OCCUR IF AMBIENT NOISE LEVELS HAVE A SUBSTANTIAL INCREASE. GENERALLY, A 3 DB INCREASE IN NOISE LEVELS IS BARELY PERCEPTIBLE, AND A 5 DB INCREASE IN NOISE LEVELS IS CLEARLY PERCEPTIBLE. THEREFORE, INCREASES IN NOISE LEVELS SHALL BE CONSIDERED TO BE SUBSTANTIAL WHEN THE FOLLOWING OCCURS:*

- *WHEN EXISTING NOISE LEVELS ARE LESS THAN 60 DB, A 5 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL;*
- *WHEN EXISTING NOISE LEVELS ARE BETWEEN 60 DB AND 65 DB, A 3 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL;*
- *WHEN EXISTING NOISE LEVELS EXCEED 65 DB, A 1.5 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL.*

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KITTELSON & ASSOCIATES AND SAXELBY ACOUSTICS. 2022.

Based upon data in Tables Noise-3 and Noise-4, the proposed Project is predicted to result in a maximum traffic noise level increase of 0.6 dB.

Evaluation of Transportation Noise on Overall Project Site

Traffic Noise Levels: Cumulative plus Project traffic noise levels are predicted to be 76 dB L_{dn} at a distance of approximately 90 feet from the centerline of Airport Way, assuming no shielding from intervening buildings or sound walls. The outdoor activity areas of proposed residential uses are located approximately 90 feet from the centerline of Airport Way. Therefore, maximum exterior noise levels of 76 dB L_{dn} are predicted for these uses. The facades of the proposed residential uses are located approximately 105 feet from the centerline of Airport Way, resulting in an exterior noise level of 75 dBA L_{dn}.

Construction Noise Environment

During the construction of the proposed Project, including roads, water, and sewer lines and related infrastructure, noise from construction activities would add to the noise environment in the Project vicinity. As indicated in Table Noise-5, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet.

TABLE NOISE-5: CONSTRUCTION EQUIPMENT NOISE

TYPE OF EQUIPMENT	*MAXIMUM LEVEL, DB*	
	25 FEET	*50 FEET*
Backhoe	84	78
Compactor	89	83
Compressor (air)	84	78
Concrete Saw	96	90
Dozer	88	82
Dump Truck	82	76
Excavator	87	81
Generator	87	81
Jackhammer	94	89
Pneumatic Tools	91	85

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

Construction Vibration Environment

The primary vibration-generating activities associated with the proposed Project would happen during construction when activities such as grading, utilities placement, and road construction occur. Table Noise-6 shows the typical vibration levels produced by construction placement.

TABLE NOISE-6: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

TYPE OF EQUIPMENT	PEAK PARTICLE VELOCITY @ 25 FEET (INCHES/SECOND)	PEAK PARTICLE VELOCITY @ 100 FEET (INCHES/SECOND)
Large Bulldozer	0.089	0.011
Loaded Trucks	0.076	0.010
Small Bulldozer	0.003	0.000
Auger/Drill Rigs	0.089	0.011
Jackhammer	0.035	0.004
Vibratory Hammer	0.070	0.009
Vibratory Compactor/roller	0.210	0.026

SOURCE: FEDERAL TRANSIT ADMINISTRATION, TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT GUIDELINES, MAY 2006

Impacts and Mitigation Measures

Response a):

Traffic Noise Increases under Existing (2003) General Plan Standards

As shown in Tables Noise-3 and Noise-4, some noise-sensitive receptors located along the Project-area roadways within and outside of the Project site are currently exposed to exterior traffic noise levels exceeding the City of Manteca 60 dB L_{dn} exterior noise level standard for residential uses. These receptors would continue to experience elevated exterior noise levels with implementation of the proposed Project. For example, sensitive receptors under Existing conditions located adjacent to Airport Way, north of West Lathrop Road experience an exterior noise level of approximately 65.7 dB L_{dn}. Under Existing + Project conditions, exterior traffic noise levels are predicted to be approximately 66.3 dB L_{dn}. Exterior noise levels in both scenarios exceed the City's exterior noise level standard of 60 dB L_{dn}. Under the City's existing General Plan, the Project's contribution of 0.6 dB would not exceed the City's increase criteria of 5-10 dB. Therefore, this would be a ***less-than-significant*** impact.

Traffic Noise Increases under Proposed General Plan Standards

The Proposed City of Manteca General Plan Noise Element specifies criteria to determine the significance of traffic noise impacts. An increase in the traffic noise level of 1.5 dB or more would be significant where the pre-Project noise levels are greater than 65 dB L_{dn}, 3.0 dB or more where existing noise levels are between 60-65 dB $L_{dn,}$ and 5 dB or more where existing noise levels are less than 60 dBA L_{dn}.

According to Tables Noise-3 and Noise-4, the maximum noise level increase due to Project traffic is predicted to be 0.6 dBA L_{dn}. For this segment of Airport Way, the existing ambient noise level at the nearest sensitive receptor is approximately 65.7 dBA. Therefore, an increase of 1.5 dB would be required to be considered a significant impact. The existing plus project increase of 0.6 dB would be significant under this scenario. All other roadway segments analyzed in the traffic study do not exceed the Proposed General Plan Standards for significant impacts. Therefore, traffic noise impacts would be ***less-than-significant***.

Operational Noise Increases

The proposed Project would include typical residential noise sources which would be compatible with the adjacent existing residential uses (a.k.a. neighborhood traffic, yard equipment, truck deliveries, garbage collected, etc.). Proposed neighborhood parks are located internal to the Project site and would not impact off-site residential uses.

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 adjacent to the proposed construction activities are located south and east of the site.

As indicated in Table Noise-5, activities involved in construction would generate maximum noise levels ranging from 82 to 96 dB L_{max} at a distance of 50 feet. Noise would also be generated during the construction phase by increased truck traffic on area roadways. A significant Project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from construction sites. This noise increase would be of short duration and would likely occur primarily during daytime hours.

Construction activities would be temporary in nature and are exempt from noise regulation during the hours of 7:00 AM to 7:00 PM, as outlined in the City's Municipal Code:

> **17.58.050 D. Exempt Activities**
>
> 8. Construction activities when conducted as part of an approved Building Permit, except as prohibited in Subsection 17.58.050(E)(1) (Prohibited Activities) below.
>
> **17.58.050 E. Prohibited Activities**
>
> 1. Construction Noise. Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work daily between the hours of 7:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities.

Therefore, with implementation of Mitigation Measure Noise-1, temporary construction noise impacts would be reduced to less than significant.

Exterior Traffic Noise at Proposed Uses

It is noted that City staff requested that the Project applicant add a buffer along Airport Way to mitigate potential impacts of industrial traffic located west of the Project site. This included adding an additional 10' right-of-way (ROW) dedication. The ROW dedication is now 35', whereas the original plan showed 25'. Homes along Airport Way now setback 30' (typical setback 20'). Also the proposed project included an earthen berm and sound wall to better shield view of industrial traffic, which has noise mitigating effects also.

Table Noise-7 shows the predicted traffic noise levels at the proposed residential uses adjacent to the major Project-area arterial roadways and highways. Based upon Tables Noise-7, exterior noise levels would exceed the City's 60 dBA L_{dn} normally acceptable exterior noise standard. Therefore, use of a physical barrier would be the only feasible method to reduce exterior noise

levels to within the City's allowable exterior noise standard range. Tables Noise-7 also indicates the noise reduction achieved through property line noise barriers of various heights.

TABLE NOISE-7: CUMULATIVE + PROJECT TRANSPORTATION NOISE LEVELS AT PROPOSED RESIDENTIAL USES

SEGMENT	APPROXIMATE RESIDENTIAL SETBACK, FEET[1]	PREDICTED NOISE LEVELS, DB L_{DN}[2]						
		NO BARRIER	6' BARRIER	7' BARRIER	8' BARRIER	9' BARRIER	10' BARRIER	11' BARRIER
Airport Way	90	76 dB	70 dB	69 dB	68 dB	66 dB	65 dB	65 dB

NOTES:

[1] SETBACK DISTANCES ARE MEASURED IN FEET FROM THE CENTERLINES OF THE ROADWAYS TO THE CENTER OF RESIDENTIAL BACKYARDS.

[2] THE MODELED NOISE BARRIERS ASSUME FLAT SITE CONDITIONS WHERE ROADWAY ELEVATIONS, BASE OF WALL ELEVATIONS, AND BUILDING PAD ELEVATIONS ARE APPROXIMATELY EQUIVALENT. SOUND BARRIER HEIGHT MAY BE ACHIEVED THROUGH THE USE A WALL AND EARTHEN BERM TO ACHIEVE THE TOTAL HEIGHT (I.E., 6-FOOT WALL ON 2-FOOT BERM IS EQUIVALENT TO AN 8-FOOT-TALL BARRIER).

SOURCE: SAXELBY ACOUSTICS. 2022.

The modeled noise barriers assume flat site conditions where roadway elevations, base of wall elevations, and building pad elevations are approximately equivalent. Appendix D of the Noise Study shows the full barrier height calculations.

The data in Table Noise-7 indicate that a noise barrier greater than 11-feet in height would be required to achieve compliance with the City of Manteca 60 dB L_{dn} exterior noise level standard for the proposed residential uses along Airport Way. It should be noted that the City's General Plan notes that residential uses are conditionally compatible with exterior noise levels of up to 65 dB L_{dn}, assuming that interior noise levels are in compliance with the City's interior noise level standards. Based upon Table Noise-7, a 10-foot-tall barrier would achieve an exterior noise level of 65 dBA L_{dn} which meets the City's conditionally compatible exterior noise standard of up to 65 dB L_{dn}. The wall height may be achieved through a combination of earthen berm and sound wall.

Interior Noise Impacts at Proposed Residential Uses

Modern construction typically provides a 25-dB exterior-to-interior noise level reduction with windows closed. Therefore, sensitive receptors exposed to exterior noise of 70 dB L_{dn}, or less, will typically comply with the City of Manteca 45 dB L_{dn} interior noise level standard. Additional noise reduction measures, such as acoustically-rated windows, are generally required for exterior noise levels exceeding 70 dB L_{dn}.

It should be noted that noise barriers do not typically reduce exterior noise levels at second floor locations. The proposed residential uses are predicted to be exposed to unmitigated first-floor exterior transportation noise levels up to 75 dBA L_{dn} at the proposed residential uses along Airport Way. Mitigated first-floor noise levels will be under 65 dBA L_{dn} after construction of sound barriers. The second-floor locations are not expected to receive adequate shielding from the proposed sound walls and may be exposed to noise levels 2-3 dB higher than ground floor receivers. Therefore, noise levels of up to 78 dB L_{dn} are expected at the second-floor facades along Airport Way.

Based upon a 25-dB exterior-to-interior noise level reduction, interior noise levels are predicted to be up to 53 dBA L_{dn} at second floors and 40 dBA L_{dn} at first floors. Accordingly, predicted

interior noise levels along the first row of residential uses along Airport Way are predicted to exceed the City's 45 dB L_{dn} interior noise level standard at second floor locations.

Appendix E of the Noise Study shows an estimate of the interior noise control measures required to meet the City's interior noise level standards. Implementation of the following mitigation measure will ensure that these potential impacts are reduced to a ***less than significant*** level.

Mitigation Measure(s)

Mitigation Measure Noise-1: *Construction activities shall adhere to the requirements of the City of Manteca Municipal Code with respect to hours of operation. This requirement shall be noted in the improvements plans prior to approval by the City's Public Works Department.*

All equipment shall be fitted with factory equipped mufflers, and in good working order. This requirement shall be noted in the improvements plans prior to approval by the City's Public Works Department.

Mitigation Measure Noise-2: *A 10-foot-tall barrier shall be constructed along the Airport Way frontage, adjacent to proposed Project residential uses, in order to achieve the City's exterior noise standards. Noise barrier walls shall be constructed of concrete panels, concrete masonry units, earthen berms, or any combination of these materials that achieve the required total height. Wood is not recommended due to eventual warping and degradation of acoustical performance. These requirements shall be included in the improvements plans prior to their approval by the City's Public Works Department. Figure 3.11-3 in the Noise Study shows the recommended sound wall locations.*

Mitigation Measure Noise-3: *For the first rows of lots adjacent to the Airport Way right of way, second floor exterior facades with a view of Airport Way would need the following noise control measures:*

- *Windows shall have a sound transmission class (STC) rating of 38.*
- *Interior gypsum at exterior walls shall be 5/8" hung on resilient channels;*
- *Ceiling gypsum shall be 5/8";*
- *Exterior finish shall be stucco, fiber cement lap siding, or system with equivalent weight per square foot;*
- *Mechanical ventilation shall be installed in all residential uses to allow residents to keep doors and windows closed, as desired for acoustical isolation.*
- *As an alternative to the above-listed interior noise control measures, the applicant may provide a detailed analysis of interior noise control measures once building plans become available. The analysis should be prepared by a qualified noise control engineer and shall outline the specific measures required to meet the City of Manteca 45 dB Ldn interior noise level standard.*

Response b): 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.

With the exception of vibratory compactors, the Table Noise-6 data indicate that construction vibration levels anticipated for the Project are less than the 0.2 in/sec threshold at a distance of 25 feet. Use of vibratory compactors within 26 feet of the adjacent buildings could cause vibrations in excess of 0.2 in/sec. Sensitive receptors which could be impacted by construction-related vibrations, especially vibratory compactors/rollers, are located approximately 15 feet, or further, from the Project site. Implementation of the following mitigation measure will ensure that these potential impacts are reduced to a ***less than significant*** level.

Mitigation Measure(s)

Mitigation Measure Noise-4: *Any compaction required less than 26 feet from the adjacent residential structures shall be accomplished by using static drum rollers which use weight instead of vibrations to achieve soil compaction. As an alternative to this requirement, pre-construction crack documentation and construction vibration monitoring could be conducted to ensure that construction vibrations do not cause damage to any adjacent structures.*

Response c): There are no airports within two miles of the Project vicinity. Therefore, this impact is not applicable to the proposed Project.

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): According to the 2020 U.S. Census, the population in Manteca is 83,498 people, and the average persons per household is 3.11. The proposed Project would result in the construction of residential housing that would generate up to an estimated 538 people. This is an estimated 0.6 percent growth in Manteca. An estimated 0.6 percent growth in Manteca is not considered substantial growth in Manteca or the region and it is consistent with the assumed growth in the General Plan. The approximately 538 people may come from Manteca or surrounding communities. The proposed Project would not include upsizing of offsite infrastructure or roadways. The installation of new infrastructure would be limited to the internal Project site. The sizing of the infrastructure would be specific to the number of units proposed within the Project site. Implementation of the proposed Project would not induce substantial population growth in an area, either directly or indirectly. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Response b): The Project site currently contains undeveloped agricultural land and a single unoccupied house. 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):

Fire Protection

The proposed Project would add up to 173 residential units, which is anticipated to add approximately 382 people to the City of Manteca. The additional of up to 538 people in the City of Manteca would place additional demands for fire service on the Manteca Fire Department.

The Manteca Fire Department serves approximately 83,498 residents throughout approximately 17.2 square miles within the City limits. The Manteca Fire Department operates out of four (4) facilities that are strategically located in the City of Manteca. The nearest fire station to the Project site is located at 1465 W Lathrop Road with a travel distance of approximately 1.48 miles south on Union Road then west on Woodward Avenue then south on Oleander Avenue to the Project site.

The Manteca Fire Department maintains a goal for the initial company of three (3) firefighters to arrive on scene for fire and emergency medical service (EMS) incidents within five (5) minutes 90% of the time (Response Effectiveness). In 2016, the Department averaged a response time for Code 3 emergencies such as fires, medical calls or auto accidents at 4:20 minutes City-wide. The Department is currently meeting the Response Effectiveness goal. The City's currently ISO PPC is rated Class 2 on a scale of 1 to 10, with Class 1 being the highest possible protection rating and Class 10 being the lowest, which is better than most of the jurisdictions in San Joaquin and Stanislaus County.

The City of Manteca receives funds for the provision of public services through development fees, property taxes, and connection and usage fees. As land is developed within the City and annexed into the City of Manteca, these fees apply. The City of Manteca reviews these fee structures on an annual basis to ensure that they provide adequate financing to cover the provision of city services. The City's Community Development, Public Works, and Finance Departments are responsible for continual oversight to ensure that the fee structures are adequate. The City reviews the referenced fees and user charges on an annual basis to determine the correct level of adjustment required to reverse any deficits and assure funding for needed infrastructure going

forward. The City includes discussion of these fees and charges as part of the annual budget hearings.

The City of Manteca General Plan 2023 includes policies and implementation measures that would allow for the Department to continue providing adequate facilities and staffing levels. Below is a list of relevant policies:

- The City shall endeavor to maintain an overall fire insurance (ISO) rating of 4 or better (Policy PF-P-42).
- The City shall endeavor through adequate staffing and station locations to maintain the minimum feasible response time for fire and emergency calls (PF-P-43).
- The City shall provide fire services to serve the existing and projected population (PF-P-44).
- The City will establish the criteria for determining the circumstances under which fire service will be enhanced (PF-P-45).
- The Fire Department shall continuously monitor response times and report annually on the results of the monitoring (PF-I-24).
- The City shall encourage a pattern of development that promotes the efficient and timely development of public services and facilities (LU-P-3).

Impact fees from new development are collected based upon projected impacts from each development. The adequacy of impact fees is reviewed on an annual basis to ensure that the fee is commensurate with the service. Payment of the applicable impact fees by the Project applicant, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the proposed project, would fund capital and labor costs associated with fire protection services. Payment of such fees is adequate to ensure that the proposed Project would not result in any CEQA impacts related to this topic, including the potential for the proposed Project to cause substantial adverse physical impact associated with the provision of new or physically alternated governmental services, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts. Therefore, the impact of the proposed Project on the need for additional fire services facilities is ***less than significant***.

Police Protection

The proposed Project would add up to 173 residential units, which is anticipated to add approximately 382 people to the City of Manteca. The additional of up to 538 people in the City of Manteca would place additional demands for police service on the Manteca Police Department.

The Project site is currently under the jurisdiction of the Manteca Police Department. The Manteca Police Department operates out of its headquarters located at 1001 W. Center Street. The Project site is located approximately 1 mile southwest of the headquarters.

The Manteca Police Department is organized into two divisions: Operations and Services. Additionally, the Police Department operates a Public Affairs Unit. For budgeting purposes, the Police Department is organized into the following programs: administration, patrol, investigations, support services, dispatch, code enforcement, jail services, and animal services.

The City of Manteca receives funds for the provision of public services through development fees, property taxes, and connection and usage fees. As land is developed within the City and annexed into the City of Manteca, these fees apply. The City of Manteca reviews these fee structures on an annual basis to ensure that they provide adequate financing to cover the provision of city services. The City's Community Development, Public Works, and Finance Departments are responsible for continual oversight to ensure that the fee structures are adequate. The City reviews the referenced fees and user charges on an annual basis to determine the correct level of adjustment required to reverse any deficits and assure funding for needed infrastructure going forward. The City intends to include discussion of these fees and charges as part of the annual budget hearings.

The City's General Plan includes policies and implementation measures that would allow for the Manteca Police Department to continue providing adequate staffing levels. Below is a list of relevant policies:

- The City shall endeavor through adequate staffing and patrol arrangements to maintain the minimum feasible police response times for police calls. Currently the City has 76 sworn officers. With a population of 83,498, that equates to a staffing level of .91 officers per 1000 residents.

- The City shall provide police services to serve the existing and projected population. The Police Department will continuously monitor response times and report annually on the results of the monitoring.

Impact fees from new development are collected based upon projected impacts from each development. The adequacy of impact fees is reviewed on an annual basis to ensure that the fee is commensurate with the service. Payment of the applicable impact fees by the Project applicant, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the proposed project, would fund capital and labor costs associated with police services. Payment of such fees is adequate to ensure that the proposed Project would not result in any CEQA impacts related to this topic, including the potential for the proposed Project to cause substantial adverse physical impact associated with the provision of new or physically alternated governmental services, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts.

Based on the current adequacy of existing response times and the ability of the Manteca Police Department to serve the City, it is anticipated that the existing police department facilities are sufficient to serve the proposed project. Consequently, any impacts would be ***less than significant***.

Schools

Most schools within the City of Manteca are part of the Manteca Unified School District (MUSD). The MUSD provides school services for grades kindergarten through 12 (K-12) within the communities of Manteca, Manteca, Stockton, and French Camp. The District is approximately 113 square miles and serves more than 24,000 students. Within the City of Manteca, there are three elementary schools (Manteca Elementary School, Joseph Widmer School, and Mossdale Elementary School) and one high school (Sierra High School). River Islands has two charter elementary schools, located within the Banta Unified School District (River Islands Technology Academy and the S.T.E.A.M. Academy).

MUSD provides school services for grades K through 12 within the communities of Manteca, Lathrop, Stockton, and French Camp. MUSD operates 14 elementary and middle schools (grades K-8), four high schools (grades 9-12), one community day school (grades 7-12), and one vocational academy (grades 11-12). The schools in the City had a total enrollment of approximately 14,279 students, of which 9,416 were enrolled in elementary and middle school (grades K – 8) and 4,863 were enrolled in high school (grades 9 – 12).

The proposed Project includes residential units that would directly increase the student population in the area. The proposed Project would include the development of up to 173 dwelling units, which would directly cause population growth and increase enrollment in the local school districts. Calculations based on the Manteca Unified School District, School Mitigation Fee Justification Study Final Draft Report, July 2020, which identifies grade K-6 student generation rate of 0.33 students per Single family unit, grade 7-8 student generation rate of 0.096 students per Single family unit and grade 9-12 student generation rate of 0.207 students per Single family unit., the proposed Project would be expected to generate up to roughly 110 new students, broken down by grades as follows:

- K–6: 57.1 students
- 7–8: 16.6 students
- 9–12: 35.8 students

The MUSD collects impact fees from new developments under the provisions of the Leroy F. Greene School Facilities Act of 1998, enacted by Senate Bill 50 ("SB 50"). SB 50 restricts the ability of local agencies to deny or condition land use approvals on the basis that school facilities are inadequate and precludes local agencies from requiring anything other than payment of the prevailing developer fee adopted by the local school district. SB 50 sets forth the "exclusive methods of considering and mitigating impacts on school facilities" resulting from any planning and/or development project, regardless of whether its character is legislative, adjudicative, or both. Govt. Code § 65996(a) (emphasis added).

Section 65995(h) provides that "[t]he payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code in the amount specified in Section 65995 … is hereby deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving but not limited to, the planning, use, or development of real property … on the provision of adequate school facilities." (emphasis added).

The reference in Section 65995(h) to fees "imposed pursuant to Section 17620 of the Education Code in the amount specified in Section 65995" is to per-square-foot school fees that can be imposed by school districts on new residential and commercial and industrial construction. Pursuant to this authority, the District has adopted a Level 1 fee in the amount of $3.79 per square foot of assessable space of new residential construction. Payment of this Level 1 fee by the Project applicant constitutes full and complete mitigation of all impacts of the proposed Project on the District's school facilities as a matter of law. (Gov't Code § 659959h).)

Under SB 50, the City of Manteca is legally precluded from concluding, under CEQA or otherwise, that payment of the prevailing Level 1 fee will not completely mitigate the impacts of the proposed Project. Government Code § 65995(a) provides that SB 50 constitutes sets forth the "exclusive methods of considering and mitigating impacts on school facilities" when evaluating

a development project. Because the methods of both "considering and mitigating" impacts on school facilities set forth in Government Code section 65996(a) are exclusive, SB 50 obviates the need for CEQA documents even to contain a description and analysis of a development project's impacts on school facilities. See Chawanakee Unified Sch. Dist. v. Cty. of Madera, 196 Cal. App. 4th 1016, 1027 (2011). Further, these statutes prohibit local agencies from concluding that payment of the authorized fees do not constitute full and complete mitigation of a project's school facilities impacts. Local agencies have no power to supersede the legislature's express and unambiguous directives on this subject.

Nor does the City possess the authority to deny or condition the proposed Project unless the Project applicant agrees to pay fees or provide other mitigation beyond the duly adopted Level 1 fee. Under Government Code § 65995(a), a "local agency may not deny or refuse to approve a legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property on the basis of a person's refusal to provide school facilities mitigation that exceeds the amounts authorized pursuant to [SB 50.]"

In short, payment of the Level 1 fee is "deemed to provide full and complete school facilities mitigation and, notwithstanding [Government Code] Section 65858, or [CEQA], or any other provision of state or local law, a state or local agency may not deny or refuse to approve [the] development of real property ... on the basis that school facilities are inadequate.".

Payment of the applicable impact fees by the Project applicant, and ongoing revenues that would come from taxes, would fund capital and labor costs associated with school services. The adequacy of fees is reviewed on an annual basis to ensure that the fee is commensurate with the service. Payment of the applicable impact fees by the Project applicant, and ongoing revenues that would come from property taxes and other revenues generated by the proposed project, would fund improvements associated with school services.

The provisions of State law are considered full and complete mitigation for the purposes of analysis under CEQA for school construction needed to serve new development. In fact, State law expressly precludes the City from reaching a conclusion under CEQA that payment of the Leroy F. Greene School Facilities Act school impact fees would not completely mitigate new development impacts on school facilities. Consequently, the City of Manteca is without the legal authority under CEQA to impose any fee, condition, or other exaction on the proposed Project for the funding of new school construction other than the fees allowed by the Leroy F. Greene School Facilities Act. Additionally, local agencies are prohibited from using the inadequacy of school facilities as a basis for denying or conditioning approvals. Although MUSD may collect higher fees than those imposed by the Leroy F. Greene School Facilities Act, no such fees are required to mitigate the impact under CEQA. Because the proposed Project would pay fees as required by The Leroy F. Greene School Facilities Act, this impact would be ***less than significant***.

Parks

CEQA requires that the proposed Project is analyzed to determine whether any substantial adverse impacts would be associated with any new or physically altered governmental facilities that may be required to serve the proposed Project (in this case, for park and recreation facilities). The proposed Project directly increases the number of persons in the area as a result of employment potential, and residential uses. The proposed Project includes up to 173 residential units, which is projected to increase the population by up to an estimated 538 people (based on 3.11 persons per household). For the purposes of extractive and collecting fees to mitigate for increase park demands (Quimby Act), the California Government Code Section 66477 states: *The amount of land dedicated or fees paid shall be based upon the residential density, which*

shall be determined on the basis of the approved or conditionally approved tentative map or parcel map and the average number of persons per household. There shall be a rebuttable presumption that the average number of persons per household by units in a structure is the same as that disclosed by the most recent available federal census or a census taken pursuant to Chapter 17 (commencing with Section 40200) of Part 2 of Division 3 of Title 4.

The City's General Plan identifies a park standard based on a goal of five acres of developed parkland per 1,000 residents within the city limits. However, Manteca Municipal Code Chapter 3.20.080, Neighborhood parks, requires in all new subdivisions, the developer to build and dedicate a neighborhood park that meets the required three acres per 1,000 people per the adopted park acquisition and improvement fee. The additional two acres of parkland per 1,000 people is made of one acre of community park and one acre of special park, which are paid through in-lieu fees. Based on an estimate of 538 residents, the Project would require approximately 2.69 acres of parkland. The proposed Project includes 3.03 acres of dedicated park, which exceeds the calculated requirements. The City, however, reviews each proposed Project and assigns credit based on its function and design (i.e. dual use basins do not receive full credit). The Quimby Act allows a development to provide the parkland onsite, or to pay the in-lieu fees to the City for the future development of park elsewhere in the City. In accordance with the Municipal Code Chapter 3.20, Park Acquisition and Improvement Fees, fees are deposited in specific funds that shall be used solely for the acquisition, improvement and expansion of public parks and recreation facilities as outlined in the park acquisition and improvement fee update.

The proposed Project is subject to the City park dedication in-lieu fees. The payment of the City park dedication in-lieu fees would serve as an adequate offset for the park demand after dedication of the 3.03 acre park. As such, with the implementation of Mitigation Measure PUBLIC-1, the proposed Project will result in a ***less-than-significant*** impact.

Other Public Facilities

The proposed Project would not result in a need for other public facilities that are not addressed above, or in Section XVIII, Utilities and Service Systems. Implementation of the proposed Project would have ***no impact*** relative to this issue.

Mitigation Measures

Mitigation Measure PUBLIC-1*: The Project applicant shall pay applicable park in-lieu fees or dedicate parkland in accordance with the City of Manteca Municipal Code standards outlined in Chapter 3.20. Proof of payment of the in-lieu fees shall be submitted to the City Engineer.*

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): The proposed Project would result in the construction of up to 173 single-family residential homes, which would result in up to an estimated 513 individuals. The City of Manteca General Plan Policy PF-P-49 calls for city park acquisition efforts to be based on the goal of 5 acres of developed neighborhood and community parkland per 1,000 residents within the City parks. Therefore, the estimated new demand for parks generated by the proposed Project is approximately 2.69 acres of new parks. The proposed Project includes the construction of 3.03 acres of new parks, which satisfies the City of Manteca General Plan Policy PF-P-49. However, the City reviews each proposed Project and assigns park credit based on its function and design (i.e. dual use basins do not receive full credit). Park in-lieu fees ultimately fund the construction of new park land to offset the increased demand for these facilities. With implementation of Mitigation Measure PUBLIC-1, this potential impact would be reduced to a ***less than significant*** level.

Responses b): Beyond the park facilities described above, the proposed Project does not include the construction of recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

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	

Existing Setting

A description of the existing roadway, transit, bicycle, and pedestrian components of the transportation system within the study area is provided in this chapter.

Data Collection

Intersection turning movement counts were collected on Wednesday, December 8, 2021, during the AM (7:00-9:00 AM) and PM (4:00-6:00PM) peak periods at six study intersections and Tuesday, September 14, 2021, at two study intersections (excluding the Project driveway(s) which do not yet exist). Peak hour traffic count data is shown in Error! Reference source not found. in the Traffic Report (Appendix D).

Additional information was collected including existing traffic controls, transit service, bicycle and pedestrian facilities, and planned transportation improvements which are described in the following sections.

Road Network

The roadway system in the study area consists of arterial roadways and regional freeways that serve local and regional traffic demand.

Freeways & Highways

Interstate 5 (I-5) is a six-lane freeway extending north and south along the west side of the City of Manteca. The I-5 freeway extends the length of California and provided regional connectivity between Manteca and Stockton. There are I-5 interchanges at Lathrop Road, approximately 2.5 miles southwest of the Project and at Roth Road approximately 3 miles northwest of the Project site. The I-5 and SR 120 interchange exists at the southwest edge of the City of Manteca and further to the west, I-5 connects to I-205 which then connects to I-580 to Pleasanton, Tracy, Livermore, and the San Francisco Bay area.

State Route 99 (SR 99) is a six-lane highway extending north and south along the east side of the City of Manteca. SR 99 connects to Stockton, Sacaremtno and Red Bluff north of Manteca and Modesto and other San Joaquin Valley population centers southeast of Manteca. There is a SR 99 interchange at Lathrop Road, approximately 2.5 miles southeast of the Project site.

Local Streets

Airport Way is classified as an arterial by the City of Manteca. It provides connectivity from Stockton to the north to rural San Joaquin County to the south. It is primarily a two-lane road within the city. Outside Manteca, the facility operates as a two-lane rural highway providing access primarily to rural residential, agricultural and some industrial land uses. The curb-to-curb width is generally about 30-feet, with two 12-foot lanes and two 3-foot shoulders. Street parking is not present along Airport Way in the study area. The posted speed limit is 45 mph.

Louise Avenue is classified as an arterial by the City of Manteca. It provides connectivity from Lathrop to the west to rural San Joaquin County to the east. East of Airport Way, Louise Avenue is a four-lane street with a center turn lane/median island. The curb-to-curb width is generally about 62-feet, with four 10-foot lanes, one 12-foot median, and two 5-foot Class II bike lanes. West of Airport Way, Louise Avenue is a two-lane street. The curb-to-curb width is about 32-feet, with two 13-foot lanes and two 6-foot shoulders. Street parking is not present. The posted speed limit is 40 mph.

Lathrop Road is an arterial roadway in the City of Manteca. It provides connectivity from west Manteca where it is called Spartan Way west of I-5 to east of SR 99. It is a four-lane, divided roaway from the I-5 ramps to the bridge over the rail-line in the east, a three-lane roadway (including a two-way left-turn lane) from the bridge over the rail-line to London Avenue, primarily a four-lane, divided roadway between London Avenue and east of Union Road. From east of Union Road to west of the SR 99 ramps it is again a three-lane roadway (with two-way left-turn lane) and a two-lane, undivided roadway east of the SR 99 ramps in the study area. The roadway cross sections transition between 45- and 65-feet in the study area. The posted speed limit is 35 mph from west of the I-5 ramps to east of 5th Street and 45 mph from east of 5th Street to east of the SR 99 ramps.

Transit Services

The transit system in the study area consists of local bus and regional rail service. Local bus service is provided by Manteca Transit, the San Joaquin Regional Transit District, and the Modesto Area Express. Regional rail service is provided by the Altamont Commuter Express. The closest bus stop to the Project site is served by Manteca Transit Route 3 and located at Chadwick Park approximately 1 and ¼ miles away.

The transit facilities in the study area are discussed below.

Manteca Transit

Manteca Transit provides bus service in the study area. Manteca Transit bus routes and local bus stops at the time of this study are provided in detail in the Appendix of the Traffic Report (Appendix D).

Table TT-1: Existing Manteca Transit Weekday Service

Route	*Loop Direction*	*Key Destinations*	*Peak/Off-Peak Frequency (minutes)*
1	Counterclockwise	■ Manteca Transit Center ■ Daniels Street at Stadium Center ■ Spreckles Shopping Area	60/60
2	Clockwise	■ Manteca Transit Center ■ Mission Ridge Shopping Center ■ Promenade Shops at Orchard Valley	60/60
3	Counterclockwise	■ Manteca Transit Center ■ McParland School ■ Louise Avenue ■ Manteca Golf Course	60/60
4	Clockwise	■ Manteca Transit Center ■ McParland School ■ Woodward Avenue ■ Manteca Golf Course	60/60

Source: Manteca Transit Ride Guide / System Map

Manteca Transit provides complementary origin to destination ADA paratransit services Monday-Saturday individuals who are ADA-Certified and are unable to use some or all of the provided fixed route bus services. The Project is located within the Dial-A-Ride program service area which provides service to seniors, persons with disabilities, Medicare card holders, and the general public.

Generally, curbside transit stops in the study area are identified with posted signs and do not include passenger amenities such as a shelter, seating, landscaping, bicycle parking, or pedestrian-scale lighting.

Modesto Area Express (MAX)

The Modesto Area Express (MAX) offers express commuter Service to the Manteca/Lathrop ACE train station from the Modesto Transit Center.

San Joaquin Regional Transit District (RTD)

The San Joaquin Regional Transit District (RTD) provides service between Modesto and Stockton through Manteca via Route 91.

Altamont Corridor Express (ACE)

The Altamont Corridor Express (ACE) provides service from Stockton to San Jose (in the morning) and from San Jose to Stockton (in the afternoon). The Manteca Transit Center serves as the Lathrop/Manteca stop.

Manteca Transit Center

The Manteca Transit Center provides service to all four bus routes and the San Joaquin RTD Route 91. The ACE Lathrop/Manteca Station provides connection to Altamont Corridor Express (ACE), Modesto Area Express (MAX), and RTD Route 91. The Manteca Transit Shuttle runs between the Manteca Transit Center and the ACE Lathrop/Manteca station five times per day. The Park & Ride Lot provides access to RTD Route 91.

Bicycle Facilities

This section describes the existing designated bicycle facilities in the Project vicinity.

Bicycle facilities are generally categorized into four types, as described below:

- **Class I Bikeway (Bike Path**). Also known as a shared path or multi-use path, a bike path is a paved right-of-way for bicycle travel that is completely separate from any street or highway.
- **Class II Bikeway (Bike Lane)**. A striped and stenciled lane for one-way bicycle travel on a street or highway. This facility could include a buffered space between the bike lane and vehicle lane and the bike lane could be adjacent to on-street parking.
- **Class III Bikeway (Bike Route)**. A signed route along a street where the bicyclist shares the right-of-way with motor vehicles. This facility can also be designated using a shared-lane marking (sharrow).
- **Class IV Bikeway (Separated Bike Lane)**. A bikeway for the exclusive use of bicycles including a separation required between the separated bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

A Class I Shared-Use off-street path currently exists less than ¼ mile south of the Project site extending east-west along Stonebridge Park and connecting to Maple Valley Park, Union Ranch East Park, and the Manteca Tidewater Bikeway. The Manteca Tidewater Bikeway runs north-south adjacent to Northgate Park and connects to downtown and the Manteca Transit Center.

No Class II bike facilities currently exist adjacent to the Project site along Airport Way. However, the City's 2003 Bicycle Master Plan identifies Lathrop Road and Airport Way in the Project vicinity for installation of future Class II bike lanes. The City of Manteca Bicycle Master Plan is included in the **Appendix** for reference purposes.

Pedestrian Facilities

Pedestrian facilities and amenities that support walking currently exist near the Project site. The availability and quality of pedestrian facilities can be qualitatively assessed using the seven key factors as shown in the following table.

Table TT-2 Pedestrian Facility Conditions

Factor	Description	Assessment
 Sidewalk Availability	Sidewalk availability is core to supporting walkability and safety by separating pedestrians from vehicles and other modes. In addition, it is important that sidewalks are present on both sides of roadways and are available along the entire segment rather than end midblock.	Sidewalks exist along the east side of Airport Way connecting to the southwest corner of the Project site and extending south to connect to the shared-use path approximately ¼ mile to the south. There are sidewalks along both sides of Daiseywood Drive and along most of the south side of Lathrop Road near Airport Way. However, a significant number of sidewalk coverage gaps exist on arterial and collector roads, including Yosemite Avenue, Airport Way, and Louise Avenue west of Airport Way.
 Sidewalk Conditions	Cracked, broken, or otherwise damaged sidewalks can pose a safety hazard and discourage walking.	Existing sidewalks nearest to the Project site are generally in good condition, free of cracks or uplifts.
 Crosswalk Availability	Marked crosswalks improve safety accommodating pedestrians that need to cross streets. A lack of marked crosswalks could hinder walkability since pedestrians need to travel greater distances to reach a safe marked crossing point. Drivers may also be less likely to yield to pedestrians at intersections with unmarked crossings.	High visibility ladder design crosswalks are provided at major study intersections including Airport Way & Lathrop Road and Airport Way & Louise Avenue. Traditional parallel line crosswalks are provided at Airport Way & Yosemite Avenue, Lathrop Road & I-5 Ramps, and Lathrop Road & SR 99 Ramps. No crosswalks are provided at Airport Way & Roth Road.
 Shading	Shading, whether natural or artificial, can encourage walking in areas such as California, particularly the City of Manteca, which is relatively warm and sunny with limited rainfall, especially in the summer.	Natural and artificial shading for pedestrians is generally lacking in the study area due to minimal tree landscaping. However, the existing sidewalk along the east side of Airport Way as well as the shared-use path that connects to Airport Way and extends east-west provides some natural shading via small/medium size trees. Residential and local streets in the study area generally offer more shading in the form of street trees and landscaping.
 Flat Grade	Steep hills and ravines can discourage walking, especially for pedestrians with limited mobility.	Major streets in the study area are relatively flat, though some rolling hills are present on Louise Avenue, Airport Way, and Yosemite Avenue.
 Buffer	Buffers which provide separation between pedestrians and moving vehicles can help improve the walking experience, and can include landscaping, parked vehicles, and bulbouts, which serve to both reduce pedestrian crossing distances at intersections and as traffic calming measures.	In general, arterial roadways in the study area lack buffers, with existing sidewalks typically extending directly to roadway or bicycle lane edges. An exception is the approximately ¼ mile stretch of sidewalk along the east side of Airport Way directly south of the Project Site, which meanders and provides between two feet and 12 feet of separation between pedestrians and motorists. Within residential neighborhoods in the study area, buffers in the form of street landscaping and parked cars are present.
 Amenities	In addition to physical facilities that accommodate walking, useful or interesting amenities along sidewalks create a more interesting walking environment, encourage active modes of travel, and increase pedestrian comfort. Amenities can include sidewalk-adjacent retail and restaurants, landscaping, and street furniture.	Pedestrian amenities primarily consist of street landscaping in residential neighborhoods. No sidewalk-adjacent retail, restaurants, or street furniture exists near the Project site.

EXISTING TRAFFIC OPERATIONS

This section provides information on the existing operating conditions for study intersections in the Project vicinity.

LEVEL OF SERVICE METHODOLOGY

Methodologies outlined in the Transportation Research Board's *Highway Capacity Manual* (HCM) are used to evaluate level of service for intersections and described in this section.

Level of Service

Level of service (LOS) describes the operating conditions experienced by persons on a transportation system. For motorized vehicles, level of service is a qualitative measure of the effects of a number of factors, including speed and travel time, traffic interruptions, freedom to maneuver, driving comfort, and convenience. Levels of service are designated LOS "A" through "F," from best to worst, which cover the entire range of traffic operations that might occur. Levels of service A through D generally represent traffic volumes at or less than roadway capacity, while LOS E and F represents conditions where traffic demands exceed capacity and the flow of traffic breaks down, resulting in stop-and-go conditions and long vehicle queues.

The City of Manteca General Plan Policy C-1.2 states that to the extent feasible, the City should strive for a vehicular LOS of D or better during weekday AM and PM peak hours at all streets and intersections, except in the Downtown area. Thus, LOS D or better is assumed as acceptable LOS at study intersections within the City and LOS E or LOS F is assumed as unacceptable operations. Intersection LOS was analyzed using methodologies described in the 6th Edition of the *Highway Capacity Manual* (HCM 6), as implemented in the analysis software program Synchro 11.

Signalized Intersections

At signalized intersections, the level of service is determined by the weighted average delay for all vehicles entering the intersection during peak hour conditions. The calculated peak hour average total delay per vehicle and level of service for each signalized study intersection are subsequently reported. The following table presents the average delay criteria used to determine the level of service at signalized intersections.

TableTT-3: Level of Service Definition for Signalized Intersections

LOS	*Average Delay (seconds/vehicle)*	*Description*
A	≤ 10	**Very Low Delay:** This level of service occurs when progression is extremely favorable, and most vehicles arrive during a green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	> 10 and ≤ 20	**Minimal Delays:** This level of service generally occurs with good progression, short cycle lengths, or both. More vehicles stop than at LOS A, causing higher levels of average delay.
C	> 20 and ≤ 35	**Acceptable Delay:** Delay increases due to fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level of service. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	> 35 and ≤ 55	**Approaching Unstable Operation/Significant Delays:** The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume / capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	> 55 and ≤ 80	**Unstable Operation/Substantial Delays:** These high delay values generally indicate poor progression, long cycle lengths, and high volume / capacity ratios. Individual cycle failures are frequent occurrences.
F	> 80	**Excessive Delays:** This level, considered unacceptable to most drivers, often occurs with oversaturation (that is, when arrival traffic volumes exceed the capacity of the intersection). It may also occur at high volume / capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Source: *Highway Capacity Manual 6th Edition* (HCM 6)

Unsignalized Intersections

For all-way stop control intersections, the HCM procedures calculate an average control delay per vehicle for each approach and the intersection as a whole, and assign a LOS designation based upon the average intersection delay.

For unsignalized one or two-way stop-controlled intersections, the methodology calculates an average total delay per vehicle for each minor street movement and for the major street left-turn movements based on the availability of adequate gaps in through traffic on the main street. A level of service designation is assigned to individual movements or to combinations of movements in the case of shared lanes, based on delay. It is not unusual for some of the minor street movements to have LOS "D," "E," or "F" conditions while the major street movements have LOS "A," "B," or "C" conditions. In such a case, the minor street traffic experiences delay that can be substantial for individual minor street vehicles, but the majority of vehicles using the intersection have very little delay. The following table presents the average delay criteria used to determine the level of service at unsignalized intersections.

Table TT-4: Level of Service Definition for Unsignalized Intersections

Level of Service (LOS)	*Average Delay (seconds/vehicle)*	*Description*
A	≤ 10	Very Low Delay
B	> 10 and ≤ 15	Minimal Delays
C	> 15 and ≤ 25	Acceptable Delay
D	> 25 and ≤ 35	Approaching Unstable Operation and/or Significant Delays
E	> 35 and ≤ 50	Unstable Operation and/or Substantial Delays
F	> 50	Excessive Delays

Source: Highway Capacity Manual 6th Edition (HCM 6)
Notes: At two-way stop-controlled intersections, LOS is determined for each minor street movement and major street left turn. At all-way stop-controlled intersections, LOS is determined for each individual approach and for the entire intersections based on average control delay.

Signal Operations

Signal timing sheets for the following signalized intersections on local streets were requested and received from the city:

- Airport Way & Lathrop Road
- Airport Way & Roth Road
- Airport Way & Louise Avenue
- Airport Way & Yosemite Avenue

Caltrans District 10 provided signal timing information for the following state-controlled signalized intersections:

- Lathrop Road & I-5 Southbound Ramps
- Lathrop Road & I-5 Northbound Ramps
- Lathrop Road & SR 99 Southbound Ramps
- Lathrop Road & SR 99 Northbound Ramps

Signal timing sheets are provided in the **Appendix** of the Traffic Report (Appendix D).

EXISTING INTERSECTION OPERATIONS

Existing intersection turning movement volumes, lane configurations, and traffic control were used to calculate the levels of service at the study intersections for the weekday AM and PM peak hour conditions (Table TT-5~~Table TT-5~~). Existing conditions intersection geometries (including Project driveways that will be constructed in Plus Project conditions) are summarized and provided in the **Appendix** of the Traffic Report (Appendix D). All study intersections operate at an acceptable LOS D or better during the weekday AM and PM peak hours without Project traffic.

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Table TT-5: Intersection Operations, Existing Conditions

No.	*Intersection*	*Traffic Control*[2]	*Peak Hour*	*LOS*[3] *(Delay)*[4]
1	Lathrop Road & I-5 Southbound Ramps	Signal	AM	B (18.0)
			PM	C (22.3)
2	Lathrop Road & I-5 Northbound Ramps	Signal	AM	B (13.5)
			PM	C (21.6)
3	Lathrop Road & Airport Way	Signal	AM	C (28.2)
			PM	D (35.9)
4	Lathrop Road & SR 99 Southbound Ramps	Signal	AM	B (19.3)
			PM	C (21.0)
5	Lathrop Road & SR 99 Northbound Ramps	Signal	AM	B (10.5)
			PM	B (10.2)
6	Airport Way & Roth Road	Signal	AM	B (12.4)
			PM	B (13.7)
7	Airport Way & Louise Avenue	Signal	AM	C (26.7)
			PM	D (35.9)
8	Airport Way & Yosemite Avenue	Signal	AM	C (20.3)
			PM	C (34.7)
9	Airport Way & Project Driveway #1[1]	None	AM	N/A
			PM	N/A
10	Airport Way & Project Driveway #2[1]	None	AM	N/A
			PM	N/A

Source: Kittelson & Associates, Inc. 2021.
Notes:
[1] Intersection does not exist without the Project.
[2] Signal = Signalized Intersection, TWSC = Two- or One-Way Stop Control intersection, AWSC = All-Way Stop Control Intersection.
[3] LOS = Level of Service
[4] Delay = Average vehicle delay reported in seconds per vehicle.

Regulatory Setting

This section summarizes applicable federal, state, regional, and local plans, laws, and regulations that are relevant to this analysis. This information provides a context for the discussion related to the proposed Project's consistency with applicable policies, plans, laws, and regulations.

Federal Regulations

This section summarizes federal agencies and laws pertinent to the proposed Project.

Federal Highway Administration

The Federal Highway Administration (FHWA) is the agency of the United States Department of Transportation (DOT) responsible for the federally funded roadway system, including the interstate highway network and portions of the primary state highway network, such as Interstate 5 (I-5).

State Regulations

This section summarizes State of California agencies, regulations, and policies that pertain to transportation in Manteca.

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) Guidelines, Appendix G Environmental Checklist Form describes four recommended categories of impacts related to transportation and traffic. These categories are recommended for formal environmental review of projects, but are referenced as appropriate for this TIA.

A project's impact is considered to be significant if it would:

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

b. Conflict or be inconsistent with CEQA Guideline section 15064.3, subdivision (b).

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

d. Result in inadequate emergency access.

Significance criteria "b" is related to the implementation of vehicle miles traveled (VMT) as the primary performance metric consistent with Senate Bill 743 as described below.

Senate Bill 743

Senate Bill 743 (SB 743) was signed into law in September 2013. Senate Bill 743 (Steinberg, 2013) required changes to the California Environmental Quality Act (CEQA) Guidelines regarding the analysis of transportation impacts. The purpose of SB 743 is to promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.

Prior to implementation of SB 743, CEQA transportation analyses of individual projects typically determined impacts on the circulation system in terms of roadway delay and/or capacity usage at specific locations, such as street intersections or freeway segments. The SB 743 changes include the elimination of auto delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts.

Under SB 743, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, level of service (LOS) and other similar vehicle delay or capacity metrics can no longer serve as transportation impact metrics for CEQA analysis. The California Office of Planning and Research (OPR) updated the CEQA Guidelines and provided a final technical advisory in December 2018, which recommends vehicle miles traveled (VMT) as the most appropriate measure of transportation impacts under CEQA. The California Natural Resources Agency certified and adopted the CEQA Guidelines including the Guidelines section implementing SB 743. The changes have been approved by the Office of the Administrative Law and are now in effect.

Revisions to CEQA transportation analysis requirements do not preclude the application of local general plan policies, municipal and zoning codes, conditions of approval, or any other planning requirements through a city's planning approval process. These requirements aim to ensure

adequate operation of the transportation system in terms of transportation congestion measures related to vehicular delay and roadway capacity.

California Department of Transportation

The California Department of Transportation (Caltrans) is the primary State agency responsible for transportation issues. As owner/operator of the State Highway System, Caltrans may review projects and plans as a commenting agency or responsible agency under the California Environmental Quality Act (CEQA). IN relation to this role, Caltrans published the Vehicle Miles Traveled-Focused Transportation Impact Study Guide" in May, 2020. This replaced the "Guide for the Preparation of Traffic Impact Studies" (December 2002), which established Measures of Effectiveness based on level of service targets.

Caltrans recommends following the guidance on methods of VMT assessment found in OPR's Technical Advisory. Caltrans comments on a CEQA document may note methodological deviations from those methods and may recommend that significance determinations and mitigation be aligned with state greenhouse gas reduction goals as articulated in OPR's guidance, the California Air Resources Board's Scoping Plan, and related documentation.

Caltrans facilities within the Manteca study area include State Route 120 and its on- and off-ramps.

For projects that may physically affect facilities under its administration, Caltrans requires encroachment permits before any construction work may be undertaken.

Regional Regulations

This section summarizes regional agencies, plans, and policies that pertain to transportation in Manteca.

San Joaquin Council of Governments Regional Congestion Management Program

The San Joaquin Council of Governments (SJCOG) is responsible for the Regional Congestion Management Program (RCMP). The purpose of the RCM) is to monitor congestion, identify congestion problems, and establish a programming mechanism aimed at reducing congestion. Designation of a regional transportation system supports RCMP monitoring activities and focuses the implementation of the RCMP on a core network of key transportation facilities that facilitate regional travel within San Joaquin County.

The RCMP network includes the following facilities in the project study area:

- Interstate 5 (I-5)
- State Route 99 (SR 99)
- Airport Way
- Louise Road
- Yosemite Avenue
- Union Road
- Roth Road

The RCMP also designates multimodal corridors where quality of transportation service is monitored for transit, bicycles and pedestrians as well as vehicles. The following multimodal corridors are designated in the project study area:

- Yosemite Avenue, Airport Way to Northwoods Ave-Commerce Ave
- Lathrop Road, from Airport Way to Crestwood Avenue
- Lathrop Road, from Harlan Road to 7th Street

Prior to 2021, the RCMP included LOS standards for the RCMP network that would affect the evaluation of local development traffic impacts. Consistent with the implementation of SB 743 CEQA streamlining legislation, the 2021 RCMP discontinues the use of LOS for the evaluation of RCMP congestion deficiencies.

The RCMP identifies deficient corridors based on combined speed-based congestion and reliability metrics. None of the deficient corridors identified in the 2021 RCMP are in the Manteca study area.

Local Regulations

This section summarizes City policies and regulations that pertain to transportation in Manteca.

Manteca General Plan

The 2021 update of the Manteca General Plan includes the following policies relevant to the transportation evaluation of the project (Table TT-6).

Table TT-6: Selected Manteca General Plan Policies

No.	*Policy*
C-1.1	Strive to balance levels of service (LOS) for all modes (vehicle, transit, bicycle, and pedestrian) to maintain a high level of access and mobility, while developing a safe, complete, and efficient circulation system. The impact of new development and land use proposals on VMT, LOS, and accessibility for all modes should be considered in the review process.
C-1.2	To the extent feasible, strive for a vehicular LOS of D or better during weekday AM and PM peak hours at all streets and intersections, except in the Downtown area or in accordance with Policy C-1.3.
C-1.3	At the discretion of the City Council or Planning Commission, certain locations may be allowed to fall below the City's LOS standard established by C-1.2 under the following circumstances: ■ a. Where constructing facilities with enough capacity to provide LOS D is found to be unreasonably expensive. ■ b. Where conditions are worse than LOS D and caused primarily by traffic from adjacent jurisdictions. ■ C. Where maintaining LOS D will be a disincentive to use transit and active transportation modes (i.e., walking and bicycling) or to the implementation of transportation or land use improvements that would reduce vehicle travel. Examples include roadway or intersection widening in areas with substantial pedestrian activity or near major transit centers.
C-2.2	Design roadway improvements to occur in a contiguous, orderly fashion and strive to build roadway improvements in advance of new development particularly when addressing existing deficiencies. However, major circulation improvements shall be constructed no later than when abutting lands develop or redevelop, with dedication of right-of-way and construction of improvements, or participation in construction of such improvements, required as a condition of approval.

No.	*Policy*
C-2.3	Require new development to pay a fair share of the costs of street and other transportation improvements based on impacts in conformance with the goals and policies established in this Circulation Element and the Public Facilities Implementation Program (PFIP).
C-2.13	Require development projects to arrange streets in an interconnected block pattern, so that pedestrians, bicyclists, and drivers are not forced onto arterial streets for inter- or intra-neighborhood travel. This approach will also ensure safe and efficient movement of emergency responders and ensure that vehicle miles traveled are minimized within the community. The street pattern shall include measures to provide a high level of connectivity and decrease vehicle miles traveled.
C-2.14	Residential subdivisions with lots fronting on an existing arterial street shall provide for separate roadway access to the maximum extent feasible, with access to residential lots provided from residential or collector streets. For those properties that currently front arterial streets, consideration should be given to providing separate roadway access as a condition of approval for any redevelopment or subdivision of the property.
C-2.15	Ensure that development and infrastructure projects are designed in a way that provides pedestrian and bicycle connectivity to adjacent neighborhoods and areas (such as ensuring that sound walls, berms, and similar physical barriers are considered and gaps or other measures are provided to ensure connectivity).
C-2.19	In the development of new projects, give special attention to maintaining/ensuring adequate corner-sight distances appropriate for the speed and type of facility, including intersections of city streets and private access drives and roadways.

Source: Manteca General Plan, March, 2021, pp, 4-2 to 4-11

Transportation Impact Analysis Requirements

The City of Manteca does not have a document that establishes specific requirements for transportation impact analysis studies. The methodologies and standards used in this TIA are based on the General Plan, state requirements and guidance, prior studies conducted in the City of Manteca, and industry best practices/guidance.

Responses to Checklist Questions

Response a), b): Less than Significant.

Conflicts with Programs: The Project would have an impact if it would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

The Project would be consistent with the City of Manteca General Plan and PFIP in terms of provisions for roadways, bicycle and pedestrian facilities.

- The Project improvements on the east side of Airport Way would not conflict with city plans to provide two northbound through lanes, a bicycle lane and a sidewalk.

- The Project would provide sidewalks throughout the Project site to enhance local pedestrian circulation and is recommended to construct sidewalk along its Airport Way frontage, consistent with local design standards.
- The Project would not conflict with other road, transit bicycle or pedestrian plans documented by the city.

VEHICLE MILES OF TRAVEL: The Project was assessed for VMT to comply with SB 743 requirements and CEQA Guideline section 15064.3, subdivision (b). The City of Manteca does not have published guidelines for VMT analysis for development projects. The methodology used is similar to a prior Manteca transportation impact study provided as an example[2]. Project VMT per capita was evaluated to determine impact findings based upon the Manteca/Lathrop Travel Demand Model. Should the Project have significant impacts for VMT, appropriate TDM measures would be recommended to reduce Project trips.

Screening Criteria: The proposed development was evaluated against the screening criteria in the Office of Planning and Research (OPR) Technical Advisory. The following criteria are applicable to residential developments.

- Small projects – projects consistent with a Sustainable Communities Strategy and local general plan that generate or attract fewer than 110 trips per day.
- Projects near major transit stops – certain projects (residential, retail, office, or a mix of these uses) proposed within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor.
- Affordable residential development – a project consisting of a high percentage of affordable housing may be a basis to find a less-than-significant impact on VMT.
- Projects in low VMT areas – residential and office projects that incorporate similar features (i.e., density, mix of uses, transit accessibility) as existing development in areas with low VMT will tend to exhibit similarly low VMT.

The proposed Project would generate more than 110 trips per day, would not be near a major transit stop, would not have a high percentage of affordable housing units, and would not be in an area already designated as a low VMT area. The Project would not meet the screening criteria. Therefore, a VMT analysis is required.

VMT Impact Criteria: The methodology used in other Manteca studies is based upon a comparison of future VMT conditions with the Project to existing baseline VMT conditions. The calculated residential VMT for the "with Project" scenario is compared with baseline citywide VMT per single family residential household. If the development would generate vehicle travel exceeding 15 percent below the established baseline, there is a significant impact.

The travel model developed for the City of Manteca General Plan Update was used to develop baseline (2019) VMT per single family residential household. The established baseline VMT per single family household is 103.8. Therefore, single family residential projects that exceed 88.2 VMT per household (15 percent below base year levels) would be considered to have significant

[2] Fehr & Peers, "Lumina at Machado Ranch – Transportation Analysis," June, 2021

transportation impacts. Projects that generate less than 88.2 VMT per household would be considered to have a less than significant transportation impact.

Project VMT Analysis: Kittelson & Associates added the proposed Project to the travel model and calculated the total daily VMT (see Table TT-7). The project VMT per household would be 36.2 percent lower than the baseline VMT per household, which is a greater reduction than the threshold of 15 percent lower than baseline. Therefore, the proposed Project would not have a significant impact on VMT.

Table TT-7: Project VMT Evaluation

Scenario	*Residential Units*	*Daily VMT*	*VMT per Unit*
2019 Manteca Baseline	21,226	2,203,915	103.8
2040 Project	173	11,460	66.2
Comparison to Baseline			-36.2%

SOURCE: KITTELSON & ASSOCIATES, 2022

Therefore, impacts associated with the potential to conflict with a program plan, ordinance, or policy or conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) would be ***less than significant***.

Responses c), d): **Less than Significant.**

HAZARDS: The Project would have an impact if it would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

- The Project proposes to provide site access via two right-in, right-out stop-controlled driveways along the east side of Airport Way. The Project access intersections will be designed and constructed per local design standards and requirements, consistent with accepted design guidelines for safety, and therefore would not be anticipated to introduce hazardous geometric design features. The Project driveways along Airport Way will not be located along a curve and it is anticipated that the provided site distance will be adequate. Connection spacing and site distance adequacy should be confirmed when the detailed improvement plans and a final map are submitted.
- The internal Project streets will be designed to meet the City's geometric design standards to avoid creating hazardous driving conditions.
- The internal Project streets will provide ADA compliant sidewalk along each side of the roadways so that pedestrians would be separated from vehicle traffic per city standards.
- Proposed roadway geometries/cross-sections and design features will be reviewed as part of final maps and improvement plan review to confirm that proposed designs are consistent with the local code and design standards and confirm that design features (such as trees, fountains, on-street parking, etc.) do not limit site distance.

EMERGENCY ACCESS: The Project would have an impact if it would result in inadequate emergency access.

- The Project would provide access to all parcels via two driveways along Airport Way and an interior street system. All streets are designed to accommodate emergency vehicles.
- As parcels adjacent to the Project develop in the future, the Project site plan allows for future street connections to the north which would provide additional emergency access routes.

Therefore, impacts associated with design features and emergency access would be ***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		

Responses to Checklist Questions

Responses a), b): A record search was conducted through the Central California Information Center (CCaIC) in October 25, 2021 to identify previously recorded sites and previous cultural resources studies in and near the Project site. The record search indicates that: the Project site does not contain any recorded prehistoric or historic archaeological resources or historic buildings. The Project site has a moderate potential for the discovery of prehistoric, ethnohistoric, or historic archaeological sites that may meet the definition of TCRs. Although no TCRs have been documented in the Project site, the Project site is located in a region where significant cultural resources have been recorded and there remains a potential that undocumented archaeological resources that may meet the TCR definition could be unearthed or otherwise discovered during ground-disturbing and construction activities. Examples of significant archaeological discoveries that may meet the TCR definition would include villages and cemeteries. Due to the possible presence of undocumented TCRs within the Project site, construction-related impacts on tribal cultural resources would be potentially significant. With implementation of the following mitigation measures (as provided under Section V. Cultural Resources), the proposed Project would have a ***less than significant*** impact related to tribal cultural resources.

Mitigation Measures

Implement Mitigation Measures CLT-1 through CLT-4.

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

Responses a)-c):

Water

It is anticipated that water supply for the proposed Project would be local groundwater and treated surface water from SSJID's South County Water Supply Program (SCWSP). Water distribution will be by an underground distribution system to be installed as per the City of Manteca standards and specifications. The applicant for the proposed Project will provide their proportionate share of required funding to the City for the acquisition and delivery of treated potable water supplies to the proposed Project site through connection fees.

The City's General Plan designates the Project site as LDR, which allows for the uses proposed for the proposed Project. Therefore, the City's 2023 General Plan anticipated the proposed Project and the City's UWMP assumed that the site would be developed with LDR uses. There are no changes to the land use assumptions in the City's General Plan Update, and UWMP Update. The following analysis reflects the City's most current water demand and supply projections based on the General Plan Update.

A comparison of the City's projected potable and raw water supplies and demands is shown in Table UTIL-1 for Normal, Single Dry, and Multiple Dry Years. Demand within the City's service area is not expected to exceed the City's supplies in any Normal year between 2020 and 2040. No demand reductions are assumed during dry years. With this assumption, the City's water demands are not expected to exceed water supplies in Single Dry Years or Multiple Dry Years.

Table UTIL-1: Summary of Potable and Raw Water Demand Versus Supply During Hydrologic Normal, Single Dry, and Multiple Dry Years

HYDROLOGIC CONDITION		SUPPLY AND DEMAND COMPARISON, AFY			
		2025	2030	2035	2040
NORMAL YEAR					
Available Potable and Raw Water Supply(a)		23,260	25,247	27,569	37,284
Total Water Demand(b)		18,480	21,012	23,891	27,164
Potential Surplus (Deficit)		4,780	4,235	3,678	10,120
Supply Shortfall, Percent of Demand		-	-	-	-
SINGLE DRY YEAR					
Available Potable and Raw Water Supply(a)		23,260	25,247	27,569	37,284
Total Water Demand(b)		18,480	21,012	23,891	27,164
Potential Surplus (Deficit)		4,780	4,235	3,678	10,120
Supply Shortfall, Percent of Demand		-	-	-	-
MULTIPLE DRY YEAR					
Multiple Dry Year 1	Available Potable and Raw Water Supply(a)	23,260	25,247	27,569	37,284
	Total Water Demand(b)	18,480	21,012	23,891	27,164
	Potential Surplus (Deficit)	4,780	4,235	3,678	10,120
	Supply Shortfall, Percent of Demand	-	-	-	-
Multiple Dry Year 2	Available Potable and Raw Water Supply(a)	23,260	25,247	27,569	37,284
	Total Water Demand(b)	18,480	21,012	23,891	27,164
	Potential Surplus (Deficit)	4,780	4,235	3,678	10,120
	Supply Shortfall, Percent of Demand	-	-	-	-
Multiple Dry Year 3	Available Potable and Raw Water Supply(a)	21,409	24,313	27,552	33,376
	Total Water Demand(b)	18,480	21,012	23,891	27,164
	Potential Surplus (Deficit)	2,929	3,301	3,661	6,212
	Supply Shortfall, Percent of Demand	-	-	-	-
Multiple Dry Year 4	Available Potable and Raw Water Supply(a)	21,409	24,313	27,552	33,376
	Total Water Demand(b)	18,480	21,012	23,891	27,164
	Potential Surplus (Deficit)	2,929	3,301	3,661	6,212
	Supply Shortfall, Percent of Demand	-	-	-	-
Multiple Dry Year 5	Available Potable and Raw Water Supply(a)	23,260	25,247	27,569	37,284
	Total Water Demand(b)	18,480	21,012	23,891	27,164
	Potential Surplus (Deficit)	4,780	4,235	3,678	10,120
	Supply Shortfall, Percent of Demand	-	-	-	-

(A) SURFACE WATER SUPPLY FROM TABLE 6-2 PLUS ASSUMED GROUNDWATER SUPPLY FROM TABLE 6-3.

(B) EQUALS THE CITY'S TOTAL PROJECTED POTABLE AND RAW WATER DEMAND (FROM TABLE 5-1 AND TABLE 5-4).

The analysis included in the City's UWMP assumed that the Project site would be developed with LDR uses. The unit water use factor for LDR land uses is 2240 gallons per day per acre (gpd/ac), which equates to 89,600 gallons per day for the proposed project. The proposed Project is well below this total allowed units (320 units allowed) and would result in less water consumption compared to the maximum allowed. The proposed Project would not increase demand beyond the levels assumed for the Project site in the City's UWMP.

The technical analyses shows that the total projected water supplies determined to be available for the Proposed Project during Normal, Single Dry, and Multiple Dry years during a 20-year projection will meet the projected water demand associated with the Proposed Project, in addition to existing and planned future uses. The proposed Project would not result in insufficient water supplies available to serve the Project from existing entitlements and resources. Therefore, the proposed Project would result in a **less than significant** impact to water supplies.

Wastewater

The City of Manteca owns and operates a wastewater collection, treatment, and disposal system, and provides sanitary sewerage service to the City of Manteca and a portion of the City of Lathrop. On February 18, 2021, the RWQCB adopted Waste Discharge Requirements Order No. R5-2021-0003 NPDES NO. CA0081558, prescribing waste discharge requirements for the City of Manteca WQCF and allowing expansion of the plant up to 17.5 mgd.

The Manteca WQCF is an activated sludge plant with denitrification. The WQCF consists of an influent pump station, aerated grit tanks, primary sedimentation basins, fine-bubble activated sludge aeration basins, secondary clarifiers, secondary effluent equalization pond, tertiary filters, UV disinfection and effluent pumping station. Secondary effluent is land applied during the spring and summer. Tertiary filtered and UV disinfected water is discharged to the San Joaquin River during the winter.

The 2006 Wastewater Master Plan Update projected a capacity requirement of 27 mgd ADWF at buildout for the WQCF at buildout. Expansion of the WQCF to buildout would occur in multiple phases, which would increase the ADWF capacity to 17.5 mgd, then to 27 mgd. The Wastewater Master Plan projected a potential reclaimed water use of 3.28 mgd. The 2005 Urban Water Management Plan projected a reclaimed water usage of 2 mgd by 2030. All of these flows may be adjusted based on historical reductions in water usage as part of a new Wastewater Master Plan which will start in 2021 and finish in 2023.

According to the City's 2012 Wastewater Collection System Master Plan Update, LDR uses are estimated to generated 1,073 gallons per acre per day. The Project site includes 40 acres of LDR, which would generate approximately 42,920 gallons per day (gpd) of wastewater. The proposed Project would increase the amount of wastewater requiring treatment. The wastewater would be treated at the WQCF. Occupancy of the proposed Project would be prohibited without sewer allocation.

The City's available capacity would ensure that there would not be a determination by the wastewater treatment and/or collection provider that there is inadequate capacity to serve the proposed Project's projected demand in addition to the provider's existing commitments. Additionally, any planned expansion to the WQCF (such as a planned expansion to a total capacity of 27 mgd) with a subsequent allocation of capacity to the proposed Project would ensure that there would not be a determination by the wastewater treatment and/or collection provider that there is inadequate capacity to serve the proposed Project's projected demand in addition to the provider's existing commitments.

As noted above, the City's 2023 General Plan designates the Project site as LDR, which allows for residential densities of up to 8 dwelling units per acre. Therefore, the City's 2023 General Plan anticipated up to 320 units and an associated population of 995 persons within the Project site.

Because the Project applicant would pay City Public Facilities Implementation Plan (PFIP) fees to develop the Project site (paid at the issuance of a building permit for development), and adequate long-term wastewater treatment capacity is available to serve full build-out of the proposed Project, a ***less than significant*** impact would occur related to requiring or resulting in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Storm Drainage

Flooding events can result in damage to structures, injury or loss of human and animal life, exposure of waterborne diseases, and damage to infrastructure. In addition, standing floodwater can destroy agricultural crops, undermine infrastructure and structural foundations, and contaminate groundwater. The RD-17 levee system is designed to a 100-year flood protection standard. The Project site is currently located in Zone X (shaded), which by definition indicates an area protected by levees from the 1% annual chance flood.

Onsite storm drainage would be installed to serve the proposed Project. Development of the proposed Project would include construction of a new storm drainage system, including a drainage collection system, storm drain pump stations, and detention basins. The stormwater drainage detention basins will be constructed to meet the City of Manteca Standards. Discharge from the basins will be conveyed through controlled flow pumping facilities to existing City of Manteca and SSJID dual use main storm drain laterals. It is noted that the locations of the proposed detention basins are conceptual and will be finalized during the design of Improvement Plans.

Installation of the Project's storm drainage system will be subject to current City of Manteca Design Specifications and Standards. The proposed storm drainage collection and detention system will be subject to the SWRCB and City of Manteca regulations, including: Manteca Storm Drain Master Plan, 2013; Phase II, NPDES Permit Requirements; NPDES-MS4 Permit Requirements; and LID Guidelines. The City requires detention basins to help attenuate peak flows before drainage discharge is pumped into SSJID's facilities. Delaying the release of water over longer periods of time further reduces the potential of downstream flooding. Most of the proposed detention basins are joint-use facilities providing recreation and other uses when not being used for stormwater detention.

Conveyance of the detained storm drainage runoff from the proposed on-site dual use detention basins may be via either gravity flow drainage lines or pumped to existing realigned and upgraded City and SSJID dual use Laterals. Stormwater quality standards imposed and monitored by the Environmental Protection Agency (EPA) and the SWRCB through the City's NPDES permit require treatment of stormwater runoff prior to its release into natural drainage features or dual use South SSJID and City Laterals. Stormwater quality is an integral part of the City's stormwater management system. Most existing stormwater is pumped into the dual use SSJID and City laterals and drains.

Implementation of BMP's and LID features may result in reduced rates and volumes of stormwater runoff to the detention facilities and off-site points of connection. Stormwater infrastructure needs within the Project area may be reduced. Size and quantity of stormwater collection, detention, and water quality features may be reduced as a result of the following:

1. Reduced pipe sizes due to the retention of the first half inch of rainfall.
2. Reduced collection system structures and pipe sizes due to implementation of LID features.
3. Reduced pump station facilities due to retention of the first half inch of rainfall.

4. Reduced power usage due to implementation of LID features and reduction in stormwater discharge volumes.

Because the Project site could increase runoff significantly, and create downstream drainage problems; Project impacts to stormwater are considered potentially significant. The following mitigation measure requires the Project applicant to submit a drainage plan to the City of Manteca for review and approval. The plan will include an engineered storm drainage plan that demonstrates attainment of pre-Project runoff requirements prior to release at the storm drainage outlet and describes the volume reduction measures and treatment controls used to reach attainment consistent with the Manteca Storm Drain Master Plan. With the implementation of the following mitigation measure, drainage impacts would be reduced to **less than significant**.

MITIGATION MEASURE(S)

Mitigation Measure UTIL-1*: Prior to the issuance of a building or grading permit, the Project applicant shall submit a drainage plan to the City of Manteca for review and approval. The plan shall include an engineered storm drainage plan that demonstrates attainment of pre-Project runoff requirements prior to release at the outlet canal and describes the volume reduction measures and treatment controls used to reach attainment consistent with the Manteca Storm Drain Master Plan.*

Responses d), e): The City of Manteca Solid Waste Division (SWD) provides solid waste hauling service for the City of Manteca and would serve the proposed project. Solid waste from Manteca is primarily landfilled at the Forward Sanitary Landfill, located northeast of Manteca. Other landfills used include Foothill Sanitary and North County.

The residential uses of the proposed Project are estimated to generate roughly 10 pounds per day per household. It is estimated that the proposed 173 residential units would generate 1,730 pounds per day (0.865 tons per day) of solid waste.

Forward Sanitary Landfill has a remaining capacity of 23,700,000 cubic yards, and has a current maximum permitted throughput of 8,668 tons per day. This landfill originally had a cease operation date in the year 2020. A 17.3-acre expansion was approved in January of 2020 inside the landfill's existing boundaries along Austin Road east of Stockton Metropolitan Airport. The lifespan of the landfill will extend from 2030 to 2036 and an additional 8.2 million cubic yards of waste will be processed on two sites, an 8.7-acre parcel in the northeast corner and an 8.6-acre parcel on the south end of the property. The City will need to secure a new location or expand existing facilities when the Forward Landfill is ultimately closed. There are several options that the City will have to consider for solid waste disposal at that time which is estimated to be 2036, including the construction of new facilities or expansion of existing facilities.

At the closure of the Forward Landfill, the City can potentially utilize the Foothill Landfill and the North County Landfill as locations for solid waste disposal. The permitted maximum disposal at the Foothill Landfill is 1,500 tons per day and the North County Landfill is 825 tons per day. The remaining capacity of these landfills include 125 million cubic yards of solid waste at the Foothill Landfill, with an estimated cease operation date of 2054, and 35.4 million cubic yards of solid waste at the North County Landfill, which has an estimated cease operation date of 2035. The addition of solid waste associated with the proposed Project to the Foothill Landfill and North County Landfill would not exceed the combined landfills' remaining capacity of 160.4 cubic yards.

The addition of solid waste associated with the proposed Project, approximately 0.865 tons per day at total buildout, to the Forward Landfill would not exceed the landfill's remaining capacity.

The City will need to secure a new location of disposal of all solid waste generated in the City when the Forward landfill is ultimately closed. There are several options that the City will have to consider for solid waste disposal at that time. Because the proposed Project would increase the local waste stream, the proposed Project would subject to the City's waste connection fee.

Development of the site for residential uses was assumed in the City's General Plan EIR. The proposed Project would not interfere with regulations related to solid waste (i.e. the State-mandated waste target of not less than 75 percent of solid waste generated be source reduced, recycled, or composted), or generate waste in excess of the capacity of local infrastructure. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

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

There are no State Responsibility Areas (SRAs) within the vicinity of the Manteca Planning Area. The City of Manteca is not categorized as a "Very High" Fire Hazard Severity Zone (FHSZ) by CalFire. No cities or communities within San Joaquin County are categorized as a "Very High" FHSZ by CalFire. Although this CEQA topic only applies to areas within a SRA or Very High FHSZ, out of an abundance of caution, these checklist questions are analyzed below.

Responses to Checklist Questions

Response a): The Project site will connect to an existing network of City streets. The proposed circulation improvements would allow for greater emergency access relative to existing conditions. The proposed 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): 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 County has areas with an abundance of flashy fuels (i.e. grassland) in the foothill areas of the eastern and western portion of the County. The Project site is located in an area that is predominately agricultural and urban, which is not considered at a significant risk of wildlife. Therefore, impacts from project implementation would be considered ***less than significant*** relative to this topic.

Response c): The proposed Project includes development of infrastructure (water, sewer, and storm drainage). The proposed infrastructure improvements would allow for decreased fire risk

relative to existing conditions. The proposed 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 d): The Project site will be connecting to an existing network of City streets. The proposed circulation improvements would allow for greater emergency access relative to existing conditions. The proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

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 Project site is relatively flat; therefore, the potential for a landslide in the Project site is essentially non-existent.

Therefore, impacts from proposed 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): This Initial Study includes an analysis of the impacts associated with aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, 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, 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): This Initial Study includes an analysis of the impacts associated with aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services,

recreation, transportation/traffic, 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 proposed Project's contribution to cumulative impacts.

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

Responses c): 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.

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