City of Lodi

The Maverik Lodi Project

Annexation and Zoning (PL2023-040 & -041)

Use Permit (PL2023-042)

SPARC (PL2023-043)

Draft Initial Study and Mitigated Negative Declaration

Prepared for

City of Lodi

City of Lodi Community Development Department

221 West Pine Street

Lodi, CA 95240

April 2025

Prepared by

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1.0 INTRODUCTION & PURPOSE

1.1 Purpose and Scope of the Initial Study

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] Section 21000 et seq.) and its Guidelines (California Code of Regulations [CCR], Title 14, Section 15000 et seq.), to evaluate the potential environmental effects associated with the construction and operation of the Maverik Lodi Project. Pursuant to Section 15367 of the State CEQA Guidelines, the City of Lodi (City) is the lead agency for the project. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project.

As set forth in the State CEQA Guidelines Section 15070, an IS/MND can be prepared when the Initial Study has identified potentially significant environmental impacts, but revisions have been made to a project, prior to public review of the Initial Study, that would avoid or mitigate the impacts to a level considered less than significant; and there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.

1.2 Summary of Findings

Section 3.0 of this document contains the Environmental Checklist that was prepared for the proposed project pursuant to CEQA requirements. The Environmental Checklist indicates whether the proposed project would result in significant impacts with the implementation of mitigation measures, as identified throughout this document.

MITIGATION MEASURES

State CEQA Guidelines Section 15041, *Authority to Mitigate,* gives the lead agency for a project the authority to require feasible changes in any or all activities involved in the project in order to substantially lessen or avoid significant effects on the environment, consistent with applicable constitutional requirements such as the "nexus" and "rough proportionality" standards. CEQA Guidelines Section 15364 defines "feasible" as capable of being accomplished in a successful manner within a reasonable period of time, considering economic, environmental, legal, social, and technological factors. Mitigation measures will be adopted to reduce the environmental impacts to less than significant levels and must be consistent with all applicable constitutional requirements, including the following:

- There must be an essential nexus (i.e., connections) between the mitigation measure and legitimate governmental interest.
- The mitigation measure be "roughly proportional" to the impacts of the project.

Several forms of mitigation under CEQA Section 15370 are summarized as follow:

- Avoiding the **impact** by not taking a certain action(s);
- **Minimizing** impacts by limiting the degree or magnitude of the action and its implementation;
- **Rectifying** the impact by repairing, rehabilitating, or restoring the impact environment;

- **Reducing** or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- **Compensating** for the impact by replacing or providing substitute resources or environment.

Avoiding impacts is the preferred form of mitigation, followed by minimizing or rectifying the impact to less than significant levels. Compensating for impacts would be pursued if no other form of mitigation is feasible.

ENVIRONMENTAL RESOURCE TOPICS

This IS/MND evaluates the proposed project's impacts on the following resource topic:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazard 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

1.3 Initial Study Public Review Process

The Initial Study and a Notice of Intent (NOI) to adopt this MND will be distributed to responsible and trustee agencies, other affected agencies, and other parties for a 30-day public review period.

Written comments regarding this MND should be addressed to:

Cynthia Marsh
City of Lodi Community Development Department
221 West Pine Street
Lodi, CA 95240
cmarsh@lodi.gov

1.4 Report Organization

This document has been organized into the following sections:

Section 1.0 – Introduction. This section provides an introduction and overview describing the conclusions of the Initial Study.

Section 2.0 – Project Description. This section identifies key project characteristics and includes a list of anticipated discretionary actions.

Section 3.0 – Initial Study Checklist. The Environmental Checklist Form provides an overview of the potential impacts that may or may not result from project implementation.

Section 4.0 – Environmental Factors Potentially Affected. This section identifies the environmental factors that could be potentially affected by the proposed project.

Section 5.0 – Environmental Evaluation. This section contains an analysis of environmental impacts identified in the environmental checklist.

Section 6.0 – References. The section identifies resources used to prepare the Initial Study.

2.0 DESCRIPTION OF PROPOSED PROJECT

2.1 Project Location

The project is located in unincorporated San Joaquin County, California. The project site is located at the edge of the central eastern boundary of the City of Lodi approximately 1.4 miles southeast of the downtown Lodi. The site is directly east of the Highway 99 northbound off ramp at East Kettleman Way (Exit 264B). The project is comprised of a single Assessor's Parcel Number (APN) 061-020-15 totaling 8.61 acres. Additionally, the project site is located in the southeast corner of the intersection of East Kettleman Lane and Beckman Road. See ***Figure 2- 1: Regional Map*** and ***Figure 2- 2: Local Vicinity Map***.

2.2 Environmental Setting

REGIONAL SETTING

The City of Lodi is located in central California, approximately 64 miles northeast of San Francisco and approximately 3 miles north of Stockton. Lodi is located within an area of California called the Central Valley. This area is an elongated valley occupying the central region of California, running on average 50 miles wide and 400 miles from north to south. The project site falls within an area of the Central Valley called the San Joaquin Basin. The San Joaquin River flows through the basin with outlets to the San Francisco Bay and Pacific Ocean. The City of Lodi is located near the northern boundary of the basin. The project site is shown on the U.S. Geological Survey's Lodi South, California, 7.5-minute quadrangle map. See **Figure *2- 3: US Topographic Map***.

LOCAL SETTING

The area to the west of the project site, west of Highway 99, is predominantly developed, including residential, commercial, and industrial uses. The area directly north of the project site consists of commercial land uses and farther north consist of industrial land uses. To the south and east of the site is agriculture, designated A/G in in the San Joaquin County General Plan and AG-40 in the County Zoning. Directly east of the project site along East Kettleman Lane is a rural residential community designated as General Agriculture and opposite of that community is an industrial facility designated within an Industrial land use. South of the parcel is a previously disturbed undeveloped site, designated General Agriculture (A/G) in the General Plan. Immediately west is a developed lot designated as A/G and an agricultural lot also designated as A/G. Approximately 300 feet to the west of the site is the off ramp for Highway 99. Directly west of the site is Beckman Road and on the opposite side of the rode is a commercial development.

The project site is currently previously disturbed undeveloped land, with minimal brush scrub vegetation. The top west section of the parcel consists of accessory units and some gravel surfaces, however, there is no hardscape and landscaping.

The proposed project area has existing street lighting along East Kettleman Lane and existing curbs and gutters along the north frontage of the parcel which are not in their ultimate locations.

The project site itself is designated as Commercial in the Lodi General Plan planning area and zoned General Agriculture (AG-40) in the San Joaquin County Development Title. The parcel is proposed to be

zoned General Commercial (GC) within the City of Lodi with annexation. The City of Lodi Section 17.20.020 defines the General Commercial district as follows:

> "The GC zoning district is applied to areas appropriate for a range of community serving commercial, regional retail, and service land uses. The FAR is 0.6. The GC zoning district is consistent with the general commercial land use designation of the general plan."

The proposed development on the site would require project specific use permits depending on the commercial use. The proposed Maverik Gas Station in the northwest corner of the site is permitted upon issuance of a Use Permit and Site Plan Review within the General Commercial Zoning District.

2.3 Proposed Project

The parcel is proposed to be zoned General Commercial within the City of Lodi with annexation and to have two separate uses: a convenience store with fueling areas and a small-scale commercial center. Convenience stores, retail sales, professional services, and business support services are allowed by right under the City of Lodi Development Code. The likely uses will include: a service station, auto-related services, restaurants (sit down and QSR's), coffee, grocery, and pharmacy. A gas station would require a Use Permit in this zoning.

Upon annexation to the City, the 8.61-acre parcel would be subdivided into two lots. The proposed convenience store and fueling area sits on approximately 3.59 acres. The store is approximately 5,982 square feet with seven (7) fuel dispensers and canopy in front of the store and five (5) additional dispensers and canopy for commercial fueling, for a total of 20 fueling positions on site with 14 for passenger vehicles and 6 for commercial vehicles. The development will provide fueling, packaged beer and wine sales, as well as fresh food items. Restroom facilities will be open to the public.

On the remainder parcel consisting of approximately 5.02 acres, a conceptual layout of a small-scale commercial center total approximately 24,990 square feet and includes parking areas around the site is included in the application as a representation of what could be developed on the property once annexed into the City. The conceptual layout consists of a larger building is approximately 14,637 square feet and two smaller buildings of approximately 5,050 square feet and 5,303 square feet. These buildings would support retail, dining, and/or commercial services. The commercial center is included in this environmental analysis to evaluate potential environmental effects associated with annexing the parcel into the City of Lodi; however, no development is proposed on the remainder parcel at this time. Future development of this parcel will require a separate review process. See ***Figure 2- 4: Conceptual Site Plan***.

Phasing

The proposed project would occur in two phases: Phase 1 would include the Maverik parcel and Phase 2 would include the designated remainder parcel that includes a small-scale commercial center conceptual site not planned for development at this time. See ***Figure 2-5: Phasing Site Plan*** for the conceptual site plan with phasing included.

Operations

The proposed Maverik project would employ approximately 15 to 18 employees. The store and fueling station will operate 24 hours a day, 7 days a week.

Store Exterior

The building elevations, building materials and floor plan depict the architectural style and themes of the Maverik brand. The exterior of the building will consist of metal roof elements, fiber cement, cultured stone, glass storefront, steel truss beams, etc. HVAC equipment will be situated on the store roof and screened from view by a parapet wall and is consistent with code requirements for screening roof mounted mechanical equipment and blending in with the surrounding community. The fuel canopy includes the same architectural elements and materials so that our design is consistent from the time you arrive to fill your tank and when you enter our store.

Traffic Access and Parking

The site will have one (1) full access driveway on East Kettleman Lane and one (1) full access driveway on Beckman Road.

Adequate on-site parking with ADA parking is located for each proposed building. Bike parking is available near the entrances of buildings.

Landscaping:

Landscaping will be provided adjacent to all rights-of-way and buffers around the edges of the property.

Utilities and Public Services

Water, sewer, and storm water utilities are adjacent or near the site within East Kettleman Lane and will serve the project site. The project proposes to detach from the Woodbridge Fire District upon annexation into the City of Lodi. Fire and police protection would be provided by the City of Lodi.

Signage

The project proposes installation of one 100-foot pylon sign and one 40-foot mid-rise sign. See ***Figure 2-5***. The project would include a variance application to allow for the construction of the 100-foot pylon sign and 40-foot mid-rise sign that exceeding height maximums for its zoning district sign standards. The proposed sign plan would comply with code and is designed for visibility and minimum impact to the existing adjacent uses.

Leak Prevention

The proposed project would install double walled noncorrodible fiberglass underground storage tanks that are hooked up to non-corrodible flexible plastic piping. When gas is delivered, a vapor recovery system would prevent less fumes from escaping into the air, causing less impact on surroundings neighbors and development. In the case of an emergency if any leak were to occur, the proposed project would have a state-of-the-art leak detection equipment along with in house resources who monitor issues in real time and immediately respond to conditions.

Alcohol Licensing

The proposed project will apply for an alcohol license that allows for packaged alcohol to be purchased but not consumed on site.

Other Improvements

Other improvements include a left turn lane on East Kettleman Lane into the project site at Beckman Road East, sidewalk, curb and gutter on Beckman Road, and a right turn lane, bike lane, sidewalk, curb and gutter on East Kettleman Lane. Additionally, the proposed project would include one crosswalk at the Kettleman Lane and Beckman Road East intersection across East Kettleman Lane as shown in ***Figure 2-4***.

Source: ESRI, 2024

Figure 2-1: Regional Map

Maverik Lodi

Initial Study/Mitigated Negative Declaration

Not to scale

Kimley»Horn

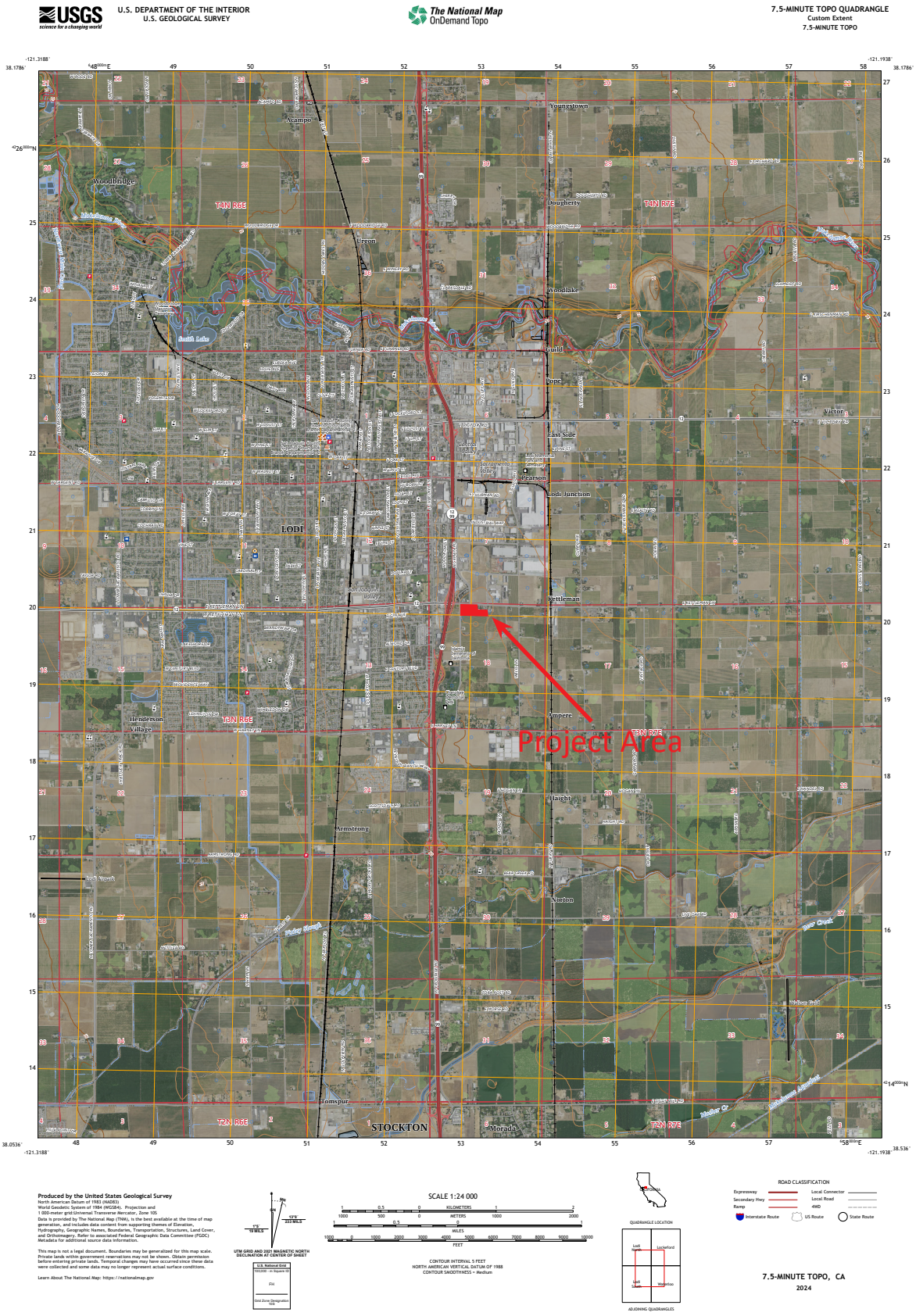
Source: ESRI, 2024

Figure 2-2: Local Vicinity Map

Maverik Lodi
Initial Study/Mitigated Negative Declaration

Not to scale

Kimley»Horn



Source: USGS, 2024

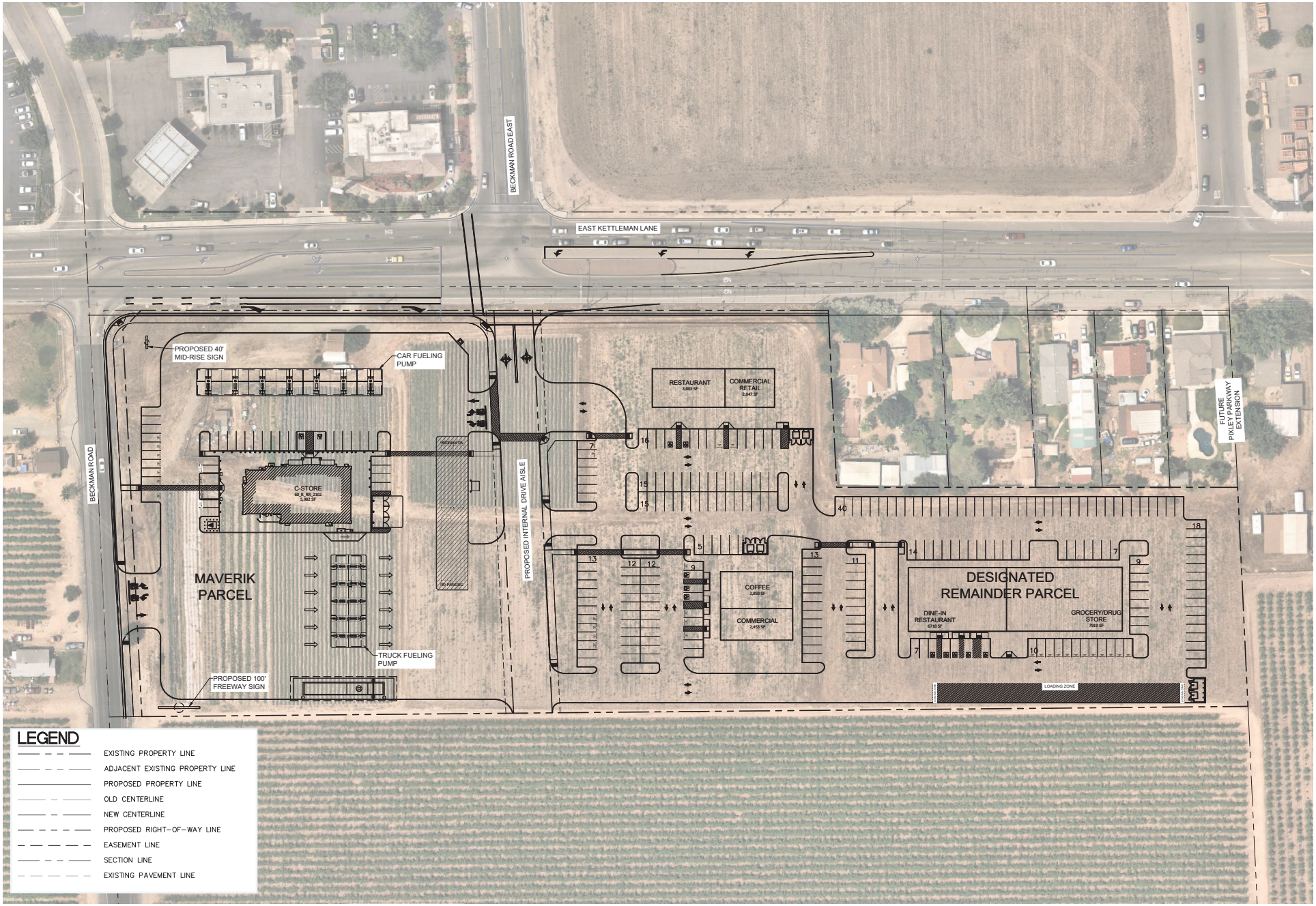
Figure 2-3: USGS Topographic Map

Maverik Lodi

Initial Study/Mitigated Negative Declaration

Not to scale

Kimley»Horn



Source: Kimley-Horn, 2025

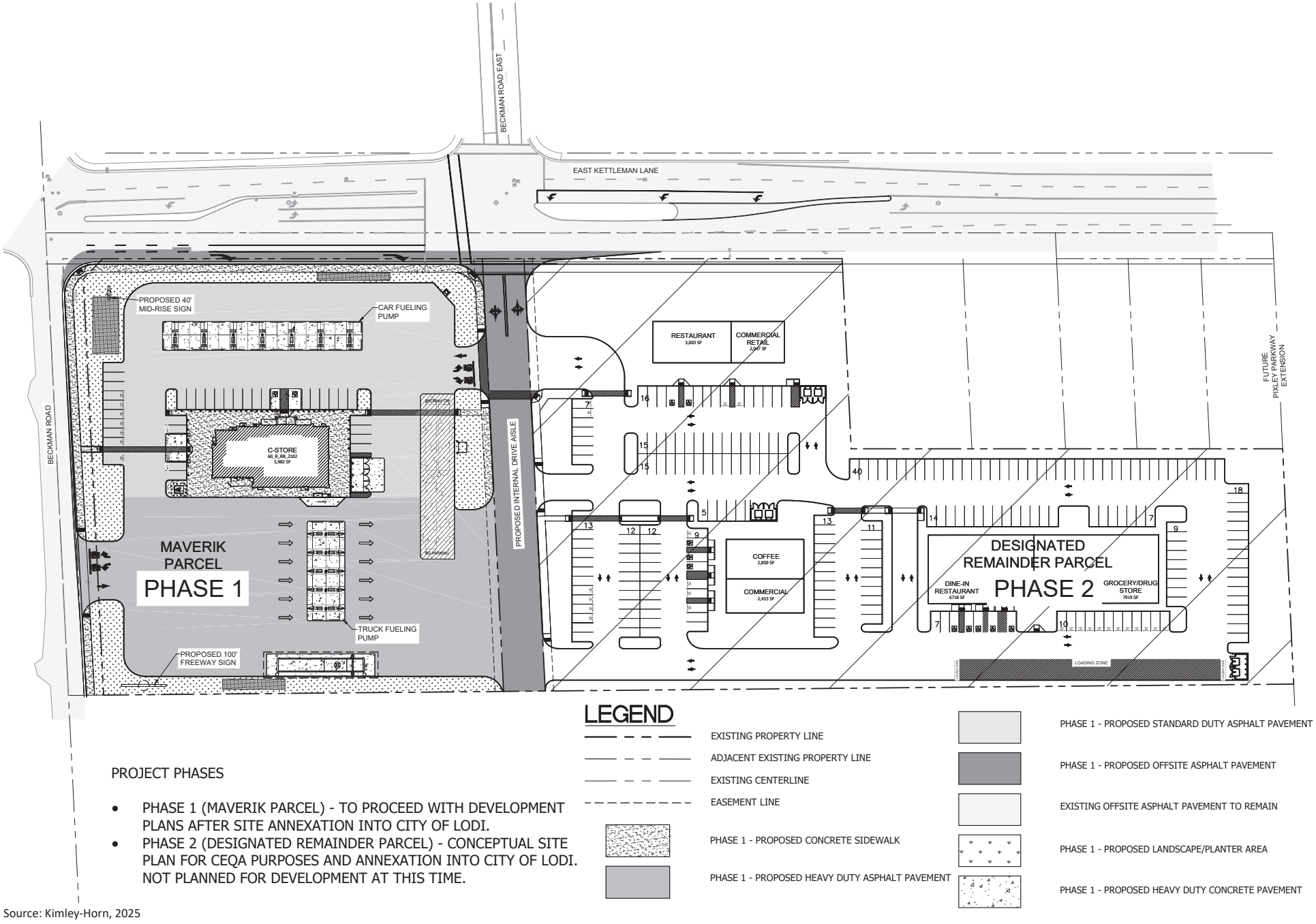
Figure 2-4: Conceptual Site Plan

Maverik Lodi

Initial Study/Mitigated Negative Declaration

Not to scale

Kimley»Horn



PROJECT PHASES

- PHASE 1 (MAVERIK PARCEL) - TO PROCEED WITH DEVELOPMENT PLANS AFTER SITE ANNEXATION INTO CITY OF LODI.
- PHASE 2 (DESIGNATED REMAINDER PARCEL) - CONCEPTUAL SITE PLAN FOR CEQA PURPOSES AND ANNEXATION INTO CITY OF LODI. NOT PLANNED FOR DEVELOPMENT AT THIS TIME.

Source: Kimley-Horn, 2025

Figure 2-5: Phasing Site Plan

Maverik Lodi
Initial Study/Mitigated Negative Declaration

Not to scale

Kimley»Horn

3.0 INITIAL STUDY CHECKLIST

NOTE: The following is a sample form that may be tailored to satisfy individual agencies' needs and project circumstances. It may be used to meet the requirements for an initial study when the criteria set forth in CEQA Guidelines have been met. Substantial evidence of potential impacts that are not listed on this form must also be considered. The sample questions in this form are intended to encourage thoughtful assessment of impacts, and do not necessarily represent thresholds of significance.

1. **Project title:**

   Maverik Lodi Project

2. **Lead agency name and address:**

   The City of Lodi
   City of Lodi Community Development Department
   221 West Pine Street
   Lodi, CA 95240

3. **Contact person and phone number:**

   Cynthia Marsh, (209) 269-4412
   cmarsh@lodi.gov

4. **Project location:**

   4872 East Kettleman Lane
   Lodi, California 95240

5. **Project sponsor's name and address:**

   Maverik
   Todd Meyers
   Sr. Site Development Manager
   185 South State Street, Suite 800
   Salt Lake City, Utah 84111

6. **General plan designation:**

   General Agriculture (A/G)

7. **Zoning:**

   General Agriculture (AG-40)

8. **Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)**

   The Maverik Lodi project proposes an 8.81 acre mixed commercial use development, including a convenience store with fueling areas and a conceptual plan for small-scale commercial center with restaurants (sit down and quick serve restaurants), coffee, grocery, and pharmacy. Only the gas station and convenience store development is proposed at this time. The small-scale commercial area is only under consideration for annexation purposes. The project is currently vacant agricultural land with street lighting along East Kettleman Lane and some existing curb and gutter along the north frontage of the parcel which are not in their ultimate locations. Additional site improvements include, but are not limited to grading, landscaping, hardscape, and irrigation. For more details, please see the detailed project description in Section 2.3 above.

9. **Surrounding land uses and setting: Briefly describe the project's surroundings:**

   The project site surroundings are generally zoned as agricultural to the east, west, and south while parcels to the north are zoned General Commercial and Industrial. The project is located east of the city limits with land previously disturbed for agriculture, further east outside of the city. Surrounding uses include State Route 99, existing commercial uses, and existing agricultural uses, and residential uses.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)**

    City of Lodi
    - Adoption of the Initial Study/Mitigated Negative Declaration
    - Approval of Use Permit, Minor Use Permit, Site Plan and Architectural Review, Tentative Parcel Map, Variance
    - Public Improvement Plans for offsite improvements
    - Parcel Map (if desired)
    - Grading and Improvement Plans
    - Building Permits

    San Joaquin County Local Agency Formation Commission
    - Annexation

    San Joaquin Council of Governments
    - Approval of Incidental Take Mitigation Measures

    San Joaquin Valley Air Pollution Control District
    - Authority to Construct/Permit to Operate

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

The City has notified California Native American tribes of the proposed project and an invitation to consult with the City as provided under Assembly Bill 52. The notifications were distributed based on a list provided by the California Native American Heritage Commission of tribes who may have knowledge of cultural resources in the project area. These notification letters were distributed to identified Native American Tribes on **December 20, 2024**, with one response at the time of this publication from the California Valley Miwok Tribe received on **December 27, 2024**, with no comments or concerns and no request for consultation. No other tribes have requested consultation or indicated there are known cultural or tribal resources on the project site.

NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

4.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact identified as "Less Than Significant With Mitigation Incorporated" as indicated by the checklist on the following pages.

- ☐ Aesthetics
- ☐ Air Quality
- ☒ Agricultural and Forestry Resources
- ☒ Biological Resources
- ☒ Cultural Resources
- ☐ Energy
- ☒ Geology/Soils
- ☒ Greenhouse Gas Emissions
- ☐ Hazards & Hazardous Materials
- ☒ Hydrology/Water Quality
- ☐ Land Use/Planning
- ☐ Mineral Resources
- ☒ Noise
- ☐ Population/Housing
- ☐ Public Services
- ☐ Recreation
- ☒ Transportation
- ☒ Tribal Cultural Resources
- ☐ Utilities/Service Systems
- ☐ Wildfire
- ☒ Mandatory Findings of Significance

DETERMINATION:

On the basis of this initial evaluation (check one):

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ 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.

CERTIFICATION:

Signature

04/02/2025
Date

5.0 ENVIRONMENTAL ANALYSIS

5.1 AESTHETICS

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
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**	

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. Under CEQA, a scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the public. A vista is a view from a particular location or combination of locations; a scenic vista combines an aesthetically pleasing aspect, often natural, to the vista. While a scenic vista may be formally designated, they are often informal public views. An adverse effect to a scenic vista may result from a degradation of an existing vista or the loss of access to an existing viewpoint.

As outlined in the Lodi General Plan Environmental Impact Repert, on clear days distant views of the Sierra Nevada foothills to the east and Mount Diablo and surrounding hills to the southwest can be seen from the City of Lodi. Most days these views are obstructed due to weather conditions, and therefore the proposed project would only intermittently obstruct views on clear days. The project site is currently located to the southwest of the City of Lodi with the parcel proposed to be zoned General Commercial (GC) within the City of Lodi with annexation into the City of Lodi. Locally, the project site is surrounded by agricultural fields to the south and the Mokelumne River to the north. The project would have a less than significant impact on views of the river, as the project is at a far enough distance where views would not be possible from the project site. The

project would fit into the context of the existing development and not significantly alter the visual aesthetic of the surrounding area. Impacts would be Less Than Significant.

b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. The project site is located in a relatively flat area with SR-99 to the west, commercial area to the north, a vacant previously disturbed lot to the south, and a rural residential area to the east. This area does not contain any aesthetically significant trees, rock outcroppings, or historical buildings. Additionally, the project site is not located near a scenic highway, the site is located approximately 17.5 miles southeast from the nearest California Scenic Highway 160 (DOT, 2018) and therefore would cause a less than significant impact to scenic resources.

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?

Less Than Significant Impact. The project site is located in an urbanized area, and, with annexation, the project would not conflict with the General Commercial zoning district it would fall within. This zoning district is described in the Cities Municipal Code as

"…areas appropriate for a range of community serving commercial, regional retail, and service land uses. The FAR is 0.6. The GC zoning district is consistent with the general commercial land use designation of the general plan."

The specific project components would be required to determine allowable use and be required to obtain correct permitting and review prior to issuance of grading permits. The proposed uses including a service station, auto-related services, restaurants (sit down and quick serve restaurants), coffee, grocery, and pharmacy are all allowed under this zoning district and fit into the overall aesthetic landscape. A gas station would require a Use Permit in this zoning but would conform to the overall aesthetic landscape. The project would align with the General Plan's Economic Development Goals to support business park growth in the southeast by providing employee-serving amenities and services adjacent to the southeast Business Park and would improve the aesthetic quality in the built environment by having curbside landscaping, providing sidewalks where space is available. The project site includes landscaping plans consistent with City guidelines and includes maintaining landscaping and a sidewalk to meet General Plan Guidelines. The proposed project would also have adequate and attractive signage on the project site to update the area and alert the public to the commercial uses at the project site. The project proposes installation of one 100-foot pylon sign and one 40-foot mid-rise signs on site to be visible from the freeway. The intent of the freeway signs is to be visible to notify drivers of the location of the business. The proposed signs are consistent with other freeways signs along SR-99 in Lodi, notably the nearby Liebherr sign and the sign located at the Lodi Toyota dealership located just north of the project site. The project would include a variance application to allow for the

construction of the 100-foot pylon sign and 40-foot mid-rise sign that exceeding height maximums for its zoning district sign standards. With approval of a variance, the project would comply with site planning and general development standards. The project would also comply with all additional federal, state, and local regulations governing scenic quality. Therefore, impacts are less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. Due to the nature of the project, operational hours are anticipated to be 24 hours per day/7 days per week/ 365 days per year. Excessive or inappropriately directed lighting can adversely impact nighttime views by reducing the ability to see the night sky and stars. Glare can be caused from unshielded or misdirected lighting sources. Reflective surfaces (i.e., polished metal) can also cause glare. Impacts associated with glare range from simple nuisance to potentially dangerous situations (i.e., if glare is directed into the eyes of motorists). Existing outdoor lighting at and near the project site is associated with commercial/retail, industrial, and street lighting typical of suburban areas. The proposed project would generate lighting from two primary sources: lighting from building interiors that would pass through windows, and lighting from exterior sources (e.g., street lighting, vehicles, security lighting, and landscape lighting). Lighting associated with the project would not be directed towards adjacent properties across Beckman Road or to the east adjacent properties along East Kettleman Lane toward the residential community.

The City of Manteca's Municipal code Section 17.16.030 General Design Guidelines outlines exterior lighting standards. This includes nuisance prevention which would require all lighting to be directed downward, toward structures, and shielded to prevent glare and light pollution, maintenance, shielding which would reduce light trespass, level of illumination, max height, energy efficient fixtures, etc. The project would adhere to these standards. Further, the City would also review new lighting for conformance with the 2022 California Green Building Standards Code (CALGreen) (California Code of Regulations [CCR] Title 24 Part 11) such that only the minimum amount of lighting is used, and no light spillage occurs. The Project would adhere to the City's Municipal Code, California's Green Buildings Standards Code, and all additional federal, state, or local regulations. Therefore, resulting in a less than significant impact concerning a new source of substantial light or glare.

Cumulative Impacts

The potential aesthetic impacts related to views, aesthetics, and light and glare are site-specific. As discussed above, project-related impacts to scenic vistas would be less than significant, and the proposed project would not result in any impacts to on-site visual resources because the project would retain and enhance the visual characteristic of the site. In addition, the proposed project would also be consistent and comply with the City's land use, scenic quality and development regulations contained in the City's Municipal Code and General Plan. Although signage would exceed height maximums for its zoning district sign standards, the project would have a variance application that would comply with code and is designed for visibility and minimum impact to the existing adjacent uses. Lighting and sources of glare, while not

always site-specific, would be consistent with the majority of the surrounding urban area and would be used during similar hours as surrounding uses. Therefore, while the proposed project in conjunction with past, present, and reasonably foreseeable development would change the appearance of the site, all development projects follow applicable local planning and design guidelines regarding roadway design including materials, coloration, and landscaping as specified in the City's Municipal Code regarding lighting standards and limitation. Therefore, aesthetic impacts are not expected to be cumulatively considerable, and impacts would be less than significant.

5.2 AGRICULTURE AND FORESTRY RESOURCES

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
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 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?			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		

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?

Less Than Significant Impact with Mitigation Incorporated. The project site is currently predominantly previously disturbed vacant land. The project includes a proposal to annex the parcel into the City of Lodi and reclassify the zoning of an 8.81-acre parcel from AG-40 (General Agriculture, 40-acre minimum) to GC (General Commercial) to develop the parcel for commercial

land uses. The proposed site would conform to the City of Lodi General Plan designating the site as General Commercial. The project site contains approximately 8.40 acres of Prime Farmland, 0.09 acres of Farmland of Local Importance, and 0.71 acres of urban and built-up land as shown on the California Important Farmland Finder Map. (California Department of Conservation, 2018) Changing the permitted land use of a parcel from an agricultural to a nonagricultural land use would require that agricultural mitigation be satisfied according to the San Joaquin County Development Title regulations set forth in Section 9-1080 of the Development Title. The number of acres of agricultural mitigation land shall be at least equal to the number of acres that will be changed to a nonagricultural use. Final approval of any project subject to agricultural mitigation is contingent upon the execution of the legal instrument to provide agricultural mitigation land and payment of the administrative fee, or approval and payment of an in-lieu fee. Implementation of **Mitigation Measure** (**MM**) **AG-1** would ensure there is a less than significant impact relative to this issue.

MM AG-1: Prior to the conversion of important farmland on the project site, the project applicant shall provide agricultural mitigation land and payment of the administrative fee, or approval and payment of an in-lieu fee The agricultural land conservation easement must be approved by the San Joaquin County Agricultural Technical Advisory Committee.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Less Than Significant Impact. Refer to a) The project site is not under a Williamson Act contract. The project site would be annexed into the City of Lodi and reclassify the existing zoning from AG-40 (General Agriculture, 40-acre minimum) as listed in the San Joaquin County Zoning Map to GC (General Commercial) as planned in the City of Lodi General Plan. Therefore, the proposed project would conform with the proposed general commercial zoning. Therefore, the proposed project would have a less than significant impact to zoning for agricultural use or a Williamson Act Contract.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

Less Than Significant Impact. The project is not zoned as forest land, timberland, or timberland production and no land in the project vicinity is. Therefore, the project would not conflict or cause rezoning of any forest land (as defined in Public Resource Code section 12220(g)) timberland (as defined by Public Resources Code section 4526), or zoned Timberland Production (as defined by Government Code section 51104(g)). Therefore, impacts related to the loss of this agricultural resource are less than significant.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

Less Than Significant Impact. Refer to c)

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?

Less Than Significant Impact with Mitigation Incorporated. Refer to a) and c)

Cumulative Impacts

The proposed project would have less than significant impacts on agricultural resources with mitigation. The proposed project would mitigate for the loss of Prime Farmland and Farmland of Local Importance and the conversion of County zoned AG-40 (General Agriculture, 40-acre minimum) land to GC (General Commercial) land. The proposed project would be consistent with the General Commercial designation in the City of Lodi General Plan. The proposed project would have no impact on forestry resources since the surrounding uses are currently used for commercial, residential, public use, and industrial purposes. Therefore, the project would not contribute to a cumulatively considerable impact to agriculture.

5.3 AIR QUALITY

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
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**	

REGULATORY SETTING

Federal

Federal Clean Air Act

Air quality is federally protected by the Federal Clean Air Act (FCAA) and its amendments. Under the FCAA, the United States Environmental Protection Agency (U.S. EPA) developed the primary and secondary National Ambient Air Quality Standards (NAAQS) for the criteria air pollutants including ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter less than or equal to 10 microns in diameter (PM_{10}), particulate matter less than or equal to 2.5 microns in diameter ($PM_{2.5}$), and lead. Depending on whether the standards are met or exceeded, the local air basin is classified as in "attainment" or "nonattainment." Some areas are unclassified, which means no monitoring data are available. Unclassified areas are considered to be in attainment. Proposed projects in or near nonattainment areas could be subject to more stringent air-permitting requirements. The FCAA requires that each state prepare a State Implementation Plan (SIP) to demonstrate how it will attain the NAAQS within the federally imposed deadlines. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The EPA has designated enforcement of air pollution control regulations to the individual states. Applicable federal and state standards are summarized in *Table 5.3-1: State and Federal Ambient Air Quality Standards*.

State

California Air Resources Board

The California Air Resources Board (CARB) administers California's air quality policy. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in *The* California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the SIP for meeting federal clean air standards for the State of California. Like the U.S. EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a State standard, and are not used as a basis for designating areas as nonattainment. The applicable State standards are summarized in *Table 5.3-1.*

5.3-1, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates. In general, San Joaquin County experiences low concentrations of most pollutants when compared to federal standards, except for O_3 and PM, for which standards are exceeded periodically. San Joaquin County has a State designation Attainment or Unclassified for all criteria pollutants except for O_3, PM_{10} and $PM_{2.5}$. San Joaquin County has a federal designation of either "Unclassified" or "Attainment" for all criteria pollutants except for O_3 and $PM_{2.5}$.

The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the SIP for meeting federal clean air standards for the State of California. Like the U.S. EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a State standard, and are not used as a basis for designating areas as nonattainment. The applicable State standards are summarized in *Table 5.3-1.*

Table 5.3-1: State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	State Standards[1]		Federal Standards[2]	
		Concentration	Attainment Status	Concentration[3]	Attainment Status
Ozone (O_3)	8 Hour	0.070 ppm (137 µg/m^3)	N[9]	0.070 ppm	N[4]
	1 Hour	0.09 ppm (180 µg/m^3)	N	NA	N/A[5]
Carbon Monoxide	8 Hour	9.0 ppm (10 mg/m^3)	A	9 ppm (10 mg/m^3)	A[6]

Pollutant	Averaging Time	State Standards[1]		Federal Standards[2]	
		Concentration	Attainment Status	Concentration[3]	Attainment Status
(CO)	1 Hour	20 ppm (23 mg/m^3)	A	35 ppm (40 mg/m^3)	A
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 $\mu g/m^3$)	A	0.100 ppm[11]	U
	Annual Arithmetic Mean	0.030 ppm (57 $\mu g/m^3$)	-	0.053 ppm (100 $\mu g/m^3$)	A
Sulfur Dioxide[12] (SO_2)	24 Hour	0.04 ppm (105 $\mu g/m^3$)	A	0.14 ppm (365 $\mu g/m^3$)	A
	1 Hour	0.25 ppm (655 $\mu g/m^3$)	A	0.075 ppm (196 $\mu g/m^3$)	A
	Annual Arithmetic Mean	NA	-	0.03 ppm (80 $\mu g/m^3$)	A
Particulate Matter (PM_{10})	24-Hour	50 $\mu g/m^3$	N	150 $\mu g/m^3$	-U
	Annual Arithmetic Mean	20 $\mu g/m^3$	N[7]	NA	-
Fine Particulate Matter ($PM_{2.5}$) [15]	24-Hour	NA	-	35 $\mu g/m^3$	U/A
	Annual Arithmetic Mean	12 $\mu g/m^3$	N[7]	9 $\mu g/m^3$	N
Sulfates (SO_{4-2})	24 Hour	25 $\mu g/m^3$	A	NA	-
Lead (Pb)[13, 14]	30-Day Average	1.5 $\mu g/m^3$	-	NA	A
	Calendar Quarter	NA	-	1.5 $\mu g/m^3$	A
	Rolling 3-Month Average	NA	-	0.15 $\mu g/m^3$	-
Hydrogen Sulfide (H_2S)	1 Hour	0.03 ppm (42 $\mu g/m^3$)	U	NA	-
Vinyl Chloride (C_2H_3Cl)	24 Hour	0.01 ppm (26 $\mu g/m^3$)	-	NA	-
Visibility Reducing Particles[8]	8 Hour (10:00 to 18:00 PST)	-	U	-	-

A = attainment; N = nonattainment; U = unclassified; N/A = not applicable or no applicable standard; ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter; mg/m^3 = milligrams per cubic meter; – = not indicated or no information available.

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM_{10}, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM_{10} annual standard), then some measurements may be excluded. In particular, measurements are excluded that CARB determines would occur less than once per year on the average. The Lake Tahoe CO standard is 6.0 ppm, a level one-half the national standard and two-thirds the state standard.
2. National standards shown are the "primary standards" designed to protect public health. National standards other than for ozone, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.070 ppm (70 ppb) or less. The 24-hour PM_{10} standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 $\mu g/m_3$. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of 98th percentiles is less than 35 $\mu g/m^3$.
   Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM_{10} is met if the 3-year average falls below the standard at every site. The annual $PM_{2.5}$ standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.
3. National air quality standards are set by the U.S. EPA at levels determined to be protective of public health with an adequate margin of safety.
4. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or

Pollutant	Averaging Time	State Standards[1]		Federal Standards[2]	
		Concentration	Attainment Status	Concentration[3]	Attainment Status

less than 0.070 ppm. U.S. EPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area.

5. The national 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005.
6. In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.
7 In June 2002, CARB established new annual standards for $PM_{2.5}$ and PM_{10}.
8 Statewide VRP Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
9. The 8-hour CA ozone standard was approved by the Air Resources Board on April 28, 2005 and became effective on May 17, 2006.
10. On January 9, 2013, EPA issued a final rule to determine that the Bay Area attains the 24-hour $PM_{2.5}$ national standard. This EPA rule suspends key SIP requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this EPA action, the Bay Area will continue to be designated as "nonattainment" for the national 24-hour $PM_{2.5}$ standard until such time as the Air District submits a "redesignation request" and a "maintenance plan" to EPA, and EPA approves the proposed redesignation.
11. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100ppm (effective January 22, 2010). The US Environmental Protection Agency (EPA) expects to make a designation for the Bay Area by the end of 2017.
12. On June 2, 2010, the U.S. EPA established a new 1-hour SO_2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO_2 NAAQS however must continue to be used until one year following U.S. EPA initial designations of the new 1-hour SO_2 NAAQS.
13. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.
14. National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.
15. In December 2012, EPA strengthened the annual $PM_{2.5}$ National Ambient Air Quality Standards (NAAQS) from 15.0 to 12.0 micrograms per cubic meter ($\mu g/m^3$). In December 2014, EPA issued final area designations for the 2012 primary annual $PM_{2.5}$ NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

Source: San Joaquin Valley Air Pollution Control District, Ambient Air Quality Standards & Attainment Status, available at https://ww2.valleyair.org/air-quality-information/ambient-air-quality-standards-valley-attainmnet-status/. -

Regional

San Joaquin Valley Air Pollution Control District (SJVAPCD)

The proposed Project lies within the northern portion of the San Joaquin Valley Air Basin (SJVAB). The San Joaquin Valley Air Pollution Control District (SJVAPCD) has jurisdiction over most air quality matters in the SJVAB and is tasked with implementing programs and regulations required by the CCAA and FCAA. If a project is found to interfere with the region's ability to comply with federal and state air quality standards, local governments then need to consider project modifications or provide mitigation measures to eliminate the inconsistency of the project plans. In order for a project to be considered "consistent" with the latest Air Quality Plan (AQP), the project must be consistent with the goals, objectives, and assumptions in the respective plan to achieve CAAQS and NAAQS. Additionally, both construction-related and long-term emissions are required to be quantified and compared to the SJVAPCD significance thresholds.

Clean Air Plan

Air quality plans developed to meet NAAQS are referred to as State Implementation Plans. The CCAA and FCAA require plans to be developed for areas designated as nonattainment (with the exception of areas designated as nonattainment for the state PM_{10} standard). The SJVAQMD is responsible for developing a Clean Air Plan, which guides the region's air quality planning efforts to attain the CAAQS. The SJVAQMD adopted the *2022 Plan for the 2015 8-Hour Ozone Standard* (2022 Ozone Plan) and *2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards* (2018 $PM_{2.5}$ Plan).

SJVAQMD periodically develops air quality plans that outline the regional strategy to improve air quality and protect the climate. The most recent plans, 2018 $PM_{2.5}$ Plan and 2022 Ozone Plan, includes a wide range of control measures designed to reduce emissions of air pollutants.

Under federal and state law, SJVAPCD is under a legal obligation to enforce air pollution regulations. These regulations are primarily meant to ensure that the surrounding (or ambient) air meets federal and state air quality standards. The following is a list of SJVAPCD rules that are required of construction and operational activities associated with the project:

- **Rule 4101 (Visible Emissions)** – This rule prohibits the emissions of visible air contaminants to the atmosphere.
- **Rule 4102 (Nuisance)** – The purpose of this rule is to protect the health and safety of the public, and applies to any source operation that emits or may emit air contaminants or other materials. This rule is enforced on a complaint basis.
- **Rule 4309 (Dryers, Dehydrators, and Ovens)** – The purpose of this rule is to limit emissions of oxides of nitrogen (NO_X) and carbon monoxide (CO) from dryers, dehydrators, and ovens. This rule applies to any dryer, dehydrator, or oven that is fired on gaseous fuel, liquid fuel, or is fired on gaseous and liquid fuel sequentially, and the total rated heat input for the unit is 5.0 million British thermal units per hour (5.0 MMBtu/hr) or greater.
- **Rule 4601 (Architectural Coatings)** – The purpose of this rule is to limit Volatile Organic Compounds (VOC) emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling. Only compliant components are available for purchase in the San Joaquin Valley.
- **Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations)** – The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. If asphalt paving will be used, then the paving operations will be subject to Rule 4641. This regulation is enforced on the asphalt provider.
- **Rule 4692 (Commercial Charbroiling)** – The purpose of this rule is to limit VOC and PM_{10} emissions from commercial charbroiling. This rule applies to charbroilers used to cook meat at commercial cooking operations.
- **Rule 9510 (Indirect Source Review)** – This rule reduces the impact of NO_X and PM_{10} emissions from growth within the Air Basin. The rule places application and emission reduction requirements on development projects meeting applicability criteria in order to reduce emissions through on-site mitigation, off-site District-administered projects, or a combination of the two.
- **Regulation VIII (Fugitive Dust PM_{10} Prohibitions)** – Rules 8011–8081 are designed to reduce PM_{10} emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and trackout, etc. All development projects that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules.

Local

City of Lodi Municipal Code

Lodi Municipal Code Section 17.14.040, *General Performance Standards*, describes general performance standards to ensure public health, safety, and welfare for land uses, including the following:

A. Air Emissions. No visible dust, gasses, or smoke shall be emitted, except as necessary for the heating or cooling of structures, and the operation of motor vehicles on the site.

Furthermore, Chapter 15.18, *Green Building Code*, describes the adoption of the provisions of the "2022 California Green Building Standard Code" as the Green Building Code of the City of Lodi, stating that the code will apply to the planning, design, operations, construction, use, and occupancy of every newly-constructed building or structure requiring a building permit in the City.

City of Lodi General Plan

The Lodi General Plan Update includes the following relevant guiding policies and implementing policies intended to control or reduce air pollution impacts which are applicable to the project:

C-G11: Support land use, transportation management, infrastructure, and environmental planning programs that reduce vehicle emissions and improve air quality.

C-G12: Minimize the adverse effects of construction related air quality emissions and Toxic Air Contaminants on human health.

C-P48: Require all construction equipment to be maintained and tuned to meet appropriate EPA and CARB emission requirements and when new emission control devices or operational modifications are found to be effective, such devices or operational modifications are to be required on construction equipment.

C-P49: Continue to require mitigation measures as a condition of obtaining permits to minimize dust and air emissions impacts from construction.

C-P50: Require contractors to implement dust suppression measures during excavation, grading, and site preparation activities. Techniques may include, but are not limited to:

- Site watering or application of dust suppressants;
- Phasing or extension of grading operations;
- Covering of stockpiles;
- Suspension of grading activities during high wind periods (typically winds greater than 25 miles per hour); and
- Revegetation of graded areas.

C-P53: Support recommendations to reduce air pollutants found in the San Joaquin Valley Air Pollution Control District (SJVAPCD) local attainment plans and use its regulatory

authority to mitigate "point" sources of air pollution (e.g., factories, power plants, etc.).

C-P54: Ensure that air quality impacts identified during the project-level CEQA review process are fairly and consistently mitigated. Require projects to comply with the City's adopted air quality impact assessment and mitigation process, and to provide specific mitigation measures as outlined in policies of Chapter 5: Transportation.

C-P59: Require industrial development adjacent to residential areas to provide buffers and institute setback intended to ensure land use compatibility in regards to potential Toxic Air Contaminant exposure.

ENVIRONMENTAL SETTING

Climate and Topography

The project site is located in the northern portion of the SJVAB, which is bound by the Sierra Nevada Mountains to the east, the Coast Range in the west, and the Tehachapi mountains in the south. The regional climate in the SJVAB is temperate and is characterized by hot dry summers and cool, mild winters, infrequent seasonal rainfall, and up valley winds. Air quality in the SJVAB is primarily influenced by meteorology and a wide range of emission sources, such as dense population centers, substantial vehicular traffic, and industry.

Air pollutant emissions in the SJVAB are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

Air Pollutants of Concern

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by State and federal laws. These regulated air pollutants are known as "criteria air pollutants" and are categorized into primary and secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO_X), sulfur dioxide (SO_2), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead are primary air pollutants; of these, CO, NO_X, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NO_X are criteria pollutant precursors and form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. For example, O_3 is formed by a chemical reaction between ROG and NO_X in the presence of sunlight; O_3 and NO_2 are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in *Table 5.3-2*: *Air Contaminants and Associated Public Health Concerns*.

Table 5.3-2: Air Contaminants and Associated Public Health Concerns

Pollutant[1]	Major Man-Made Sources	Human Health Effects
Particulate Matter (PM_{10} and $PM_{2.5}$)	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
Ozone (O_3)	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC)[1] and nitrogen oxides (NO_X) in the presence of sunlight. Motor vehicles exhaust industrial emissions, gasoline storage and transport, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
Sulfur Dioxide (SO_2)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to O_3. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Lead (Pb)	Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.	Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and lowered IQ.

Note:
1. Volatile Organic Compounds (VOCs or Reactive Organic Gases [ROG]) are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

Source: California Air Resources Board, *Common Air Pollutants*, https://ww2.arb.ca.gov/resources/common-air-pollutants, accessed December 2024.

Toxic Air Contaminants

Toxic air contaminants (TACs) are airborne substances that can cause short-term (acute) or long-term (i.e., chronic, carcinogenic or cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes more than 200 compounds, including particulate emissions from diesel-fueled engines.

CARB identified DPM as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

Ambient Air Quality

CARB monitors ambient air quality at approximately 250 air monitoring stations across the State. These stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Existing levels of ambient air quality, historical trends, and projections near the project site are documented by measurements made by the SJVAPCD, the air pollution regulatory agency in the SJVAB that maintains air quality monitoring stations which process ambient air quality measurements.

Pollutants of concern in the SCAB include O_3, PM_{10}, and $PM_{2.5}$. The closest air monitoring stations to the project that monitors ambient concentrations of these pollutants are the Stockton – University Park Station (located approximately 11.4 miles to the south) and the Bethel Island Road Station (located approximately 22.75 miles to the southwest). Local air quality data from 2021 to 2023 are provided in *Table 5.3-3*: *Ambient Air Quality Data*, which lists the monitored maximum concentrations and number of exceedances of State or federal air quality standards for each year.

Table 5.3-3: Ambient Air Quality Data

Criteria Pollutant	2021	2022	2023
Ozone (O_3)[1]			
1-hour Maximum Concentration (ppm)	0.04	0.141	0.086
8-hour Maximum Concentration (ppm)	0.037	0.114	0.069
Number of Days Standard Exceeded			
CAAQS 1-hour (>0.09 ppm)	0	1	0
NAAQS 8-hour (>0.070 ppm)	0	1	0
Carbon Monoxide (CO)			
1-hour Maximum Concentration (ppm)	2.013	1.015	4.508
Number of Days Standard Exceeded			
NAAQS 1-hour (>35 ppm)	—	—	—
CAAQS 1-hour (>20 ppm)	—	—	—
Nitrogen Dioxide (NO_2)[2]			
1-hour Maximum Concentration (ppm)	34.0	44.2	45.0
Number of Days Standard Exceeded			
NAAQS 1-hour (>0.100 ppm)	0	0	0
CAAQS 1-hour (>0.18 ppm)	0	0	0
Particulate Matter Less Than 10 Microns (PM_{10})[1]			
National 24-hour Maximum Concentration	69.5	80.6	81.7
State 24-hour Maximum Concentration	72.2	81.3	81.5
State Annual Average Concentration (CAAQS=20 µg/m3)	—	26.2	—
Number of Days Standard Exceeded			
NAAQS 24-hour (>150 µg/m^3)	—	—	—
CAAQS 24-hour (>50 µg/m^3)	—	—	—
Particulate Matter Less Than 2.5 Microns ($PM_{2.5}$)[2]			
National 24-hour Maximum Concentration	39.5	51.9	40.6
State 24-hour Maximum Concentration	39.5	51.9	40.6
Number of Days Standard Exceeded			
NAAQS 24-hour (>35 µg/m^3)	—	—	—

NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million.
µg/m3 = micrograms per cubic meter; – = not measured

Notes: Measurements taken at the Stockton – University Park at 702 N. Aurora Street, Stockton CA 95202 (CARB# 39255) and the Bethel Island Road Station at 5551 Bethel Island Road, Bethel Island, CA 94511 (CARB# 07442).

Source: All pollutant measurements are from the CARB Aerometric Data Analysis and Management system database (https://www.arb.ca.gov/adam) except for CO, which were retrieved from the CARB Air Quality and Meteorological Information System (https://www.arb.ca.gov/aqmis2/aqdselect.php).

Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than is the general population. Sensitive receptors that are in proximity to localized sources of toxics are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The nearest sensitive receptors to the project site are single-family residences adjacent to the east. Sensitive land uses nearest to the project site are shown in *Table 5.3-4***:** *Sensitive Receptors*.

Table 5.3-4: Sensitive Receptors

Receptor Description[1]	Distance and Direction from the Project Site
Single-family Residential	Adjacent to the east
Single-family Residential	75 feet to the west
Single-family Residential	530 feet to the south
Single-family Residential	948 feet to the east
1. Located in unincorporated San Joaquin County.	
Source: Google Earth, 2024; City of Lodi, *City of Lodi Council District Map*, https://www.lodi.gov/DocumentCenter/View/5219/Council-District-Map, accessed December 2024; San Joaquin County, *San Joaquin County Community Development Geographic Information Systems*, 2019, https://sjmap.org/DistrictViewer/, accessed December 2024.	

THRESHOLDS OF SIGNIFICANCE

SJVAPCD has identified regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SJVAB. *Table 5.3-5: SJVAPCD Criteria Pollutant Thresholds of Significance* lists SJVAPCD's regional significance thresholds.

Table 5.3-5: SJVAPCD Criteria Pollutant Thresholds of Significance

Criteria Air Pollutants and Precursors (Regional)	Construction-Related	Operational-Related
	Average Annual Emissions (tons/year)	Annual Average Emission (tons/year)
Reactive Organic Gases (ROG)	10	10
Nitrogen Oxides (NO_X)	10	10
Carbon Monoxide (CO)	100	100
Sulfur Oxides (SO_X)	27	27
Coarse Particulates (PM_{10})	15	15
Fine Particulates ($PM_{2.5}$)	15	15
Source: SJVAPCD, *Guidance for Assessing and Mitigating Air Quality Impacts*, March 2015.		

In addition to the thresholds cited above, the SJVAPCD has thresholds applicable to CO emissions that require projects to perform localized CO modeling. These preliminary thresholds include the following:

- A traffic study for the project indicates that the Level of Service (LOS) on one or more streets or at one or more intersections in the project vicinity will be reduced to LOS E or F; or
- A traffic study indicates that the project will substantially worsen an already existing LOS F on one or more streets or at more or more intersections in the project vicinity.

With respect to cumulative air quality impacts, the SJVAPCD's *Guide of Assessing and Mitigating Air Quality Impacts* (GAMAQI)[1] provides that any project that would individually have a significant air quality impact (i.e. exceed criteria pollutant significance thresholds) would also be considered to have significant cumulative impacts.

Projects that would potentially generate objectionable odorous emissions that would be located near existing sensitive receptors or other land uses where people may congregate could constitute a significant air quality impact to existing uses. The SJVAPCD uses a threshold based on the distance of the odor source from people and complaint records for a facility or similar facility. The threshold would be more than one confirmed complaint per year averaged over a three-year period, or three unconfirmed complaints per year averaged over a three-year period.

Health Risk Analysis Thresholds

Project health risks are determined by examining the types and levels of air toxics generated and the associated impacts on factors that affect air quality. While the final determination of significance thresholds is within the Lead Agency's purview pursuant to the State CEQA Guidelines, the SJVAPCD recommends that lead agencies use the following air pollution thresholds in determining whether a project's impacts are significant. If the lead agency finds that the project has the potential to exceed the air pollution thresholds, a project's impacts should be considered significant. The TAC emissions thresholds are as follows.

- **Cancer Risk (Individual):** Emit contaminants that result in a maximum individual incremental cancer risk equal to or greater than 20 in one million.
- **Non-Cancer Risk:** Emit contaminants that result in a chronic or acute hazard index equal to or greater than 1.0 (project increment).

Cancer risk is expressed in terms of expected incremental incidence per million population. The SJVAPCD has established an incidence rate of 20 persons per million as the maximum acceptable incremental cancer risk due to TAC exposure. This threshold is an upper-bound incremental probability to determine whether or not a given project has a potentially significant development-specific and cumulative impact and to ensure an individual new source does not contribute a cumulatively significant impact. The 20 in one million standard is a health-protective significance threshold. A risk level of 20 in one million implies a likelihood that up to 20 persons, out of one million equally exposed persons, would contract cancer if exposed continuously (24 hours per day) to the TAC levels over a specified duration of time. This risk would be an excess cancer that is in addition to any cancer risk borne by a person not exposed to these TACs.

The SJVAPCD has also established non-carcinogenic risk parameters for use in HRAs. Noncarcinogenic risks are quantified by calculating a "hazard index," expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). A REL is a concentration at or below which health effects are not likely to occur. A hazard index of less than 1.0 means that adverse health effects are not expected. Within this analysis, non-carcinogenic exposures of less than 1.0 are considered less than significant.

[1] San Joaquin Valley Air Pollution Control District, *Guidance for Assessing and Mitigating Air Quality Impacts*, March 19, 2015.

ENVIRONMENTAL IMPACTS

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The SJVAPCD is tasked with implementing programs and regulations required by the FCAA and the CCAA. In that capacity, the SJVAPCD has prepared plans to attain Federal and State ambient air quality standards. To achieve attainment with the standards, the SJVAPCD has established thresholds of significance for criteria pollutant emissions in their GAMAQI. Projects with emissions below the thresholds of significance for criteria pollutants would be determined to "not conflict or obstruct implementation of the District's air quality plan". As discussed in 5.3 (b) below, the project would not exceed any SJVAPCD Criteria Pollutant Thresholds during construction or operations. Therefore, the project would not conflict with or delay the implementation of SJVAPCD attainment plans and would result in a less than significant impact.

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?

Less Than Significant Impact.

Construction Emissions

Project construction activities would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the project area include ozone-precursor pollutants (i.e., ROG and NO_x), PM_{10} and $PM_{2.5}$. Construction-generated emissions are short term and temporary, lasting only while construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SJVAPCD's thresholds of significance.

Construction results in the temporary generation of emissions during site preparation, site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities, as well as weather conditions and the appropriate application of water.

Construction activities would include site preparation, grading, building construction, paving, and architectural coating applications. Earthwork activities would require approximately 1,984 cubic yards (cy) of import. The duration of construction activities associated with the project are estimated to last approximately 12 months, beginning in January 2025 and concluding in mid-December of the same year. The project's construction-related emissions were calculated using the SJVAPCD-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. The project's predicted maximum annual construction-related emissions are summarized in *Table 5.3-6: Construction-Related Emissions*. It is noted that due to technology improvements for construction equipment, emissions from project construction activities would likely be lower than those shown in the table if construction were to occur in later years. See **Appendix A: Air Quality, GHG, and**

Energy Modeling Data for additional information regarding the construction assumptions used in this analysis.

Table 5.3-6: Construction-Related Emissions

Construction Year	Pollutant (maximum tons per year)					
	Reactive Organic Gases (ROG)	**Nitrogen Oxides (NO_X)**	**Carbon Monoxide (CO)**	**Sulfur Oxides (SO_X)**	**Coarse Particulate Matter (PM_{10})**	**Fine Particulate Matter ($PM_{2.5}$)**
2025	0.27	1.33	1.63	<0.01	0.24	0.14
SJVAPCD Significance Threshold[1]	*10*	*10*	*100*	*27*	*15*	*15*
Exceed SJVAPCD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

1. SJVAPCD, *Guidance for Assessing and Mitigating Air Quality Impacts*, March 2015.
Source: Refer to the CalEEMod outputs provided in **Appendix A**.

Fugitive Dust Emissions. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill operations, and truck travel on unpaved roadways. Dust emissions also vary substantially from day to day, depending on the level of activity, the specific operations, and weather conditions. Fugitive dust emissions may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project vicinity. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Pursuant to Regulation VIII, Rule 9510, the project would be required to develop, prepare, submit, obtain approval of, and implement a dust control plan, which would reduce fugitive dust impacts to less than significant for project construction.

Construction Equipment and Worker Vehicle Exhaust. Exhaust emission factors for typical diesel-powered heavy equipment are based on the CalEEMod program defaults. Variables factored into estimating the total construction emissions include: level of activity, length of construction period, number of pieces/types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported onsite or offsite. Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced on site as the equipment is used, and emissions from trucks transporting materials and workers to and from the site. Emitted pollutants would include ROG, NO_X, PM_{10}, and $PM_{2.5}$. As detailed in *Table 5.3-6,* project construction emissions would not the exceed SJVAPCD thresholds and construction emissions would not result in a potentially significant impact. Therefore, construction air quality impacts would be less than significant.

ROG Emissions. In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. In accordance with the methodology prescribed by the SJVAPCD, the ROG emissions associated with paving have been quantified with CalEEMod.

The highest concentration of ROG emissions would be generated from architectural coating beginning in August 2025 and lasting approximately four months. This phase includes the interior and exterior painting as well as striping of all paved parking areas and driveways. Paints would be required to comply with SJVAPCD's Rule 4601 (Architectural Coatings) and limit the amount of ROG emissions from cutback asphalt in compliance with the requirements of SJVAPCD's Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

Summary. As shown in *Table 5.3-6*, all criteria pollutant emissions would remain below their respective thresholds. As such, the proposed project's construction would not worsen ambient air quality, create additional violations of federal and state standards, or delay the Basin's goal for meeting attainment standards. Impacts would be less than significant.

Operational Emissions

Project operational emissions would be generated from mobile sources (burning of fossil fuels in cars and trucks); energy sources (cooling and heating); area sources (landscape equipment and consumer products); and gasoline dispensing activities. *Table 5.3-7: Project Operational Emissions* shows that the project's maximum emissions would not exceed SJVAPCD operational thresholds.

Table 5.3-7: Project Operational Emissions

Emissions Source	Pollutant (maximum tons per year)					
	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO_X)	Carbon Monoxide (CO)	Sulfur Oxides (SO_X)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Area	0.16	<0.01	0.12	<0.01	<0.01	<0.01
Energy	<0.01	0.10	0.08	<0.01	<0.01	<0.01
Mobile	5.34	7.70	20.08	0.03	1.57	0.43
Backup Generator	0.02	0.04	0.04	0.00	0.00	0.00
Drive Thru Idling	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
Gas Dispensing Facility	3.15	-	-	-	-	-
Total Project Emissions	8.67	7.84	20.33	0.03	1.58	0.44
SJVAPCD Significance Threshold[1]	*10*	*10*	*100*	*27*	*15*	*15*
SJVAPCD Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
1. SJVAPCD, *Guidance for Assessing and Mitigating Air Quality Impacts*, March 2015.						
Source: Refer to the CalEEMod outputs provided in **Appendix A**.						

Area Source Emissions. Area source emissions would be generated due to consumer products, on-site equipment, architectural coating, and landscaping that were previously not present on the site. Consumer products are various solvents used in non-industrial applications, which emit VOCs during product use. These typically include cleaning supplies, kitchen aerosols, cosmetics, and toiletries.

Energy Source Emissions. Energy source emissions would be generated as a result of electricity and natural gas usage associated with the project. The primary use of electricity and natural gas by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics.

Mobile Source Emissions. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport PM_{10} and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source. Project-generated vehicle emissions have been estimated using CalEEMod. Trip generation rates associated with the project were based on the *Lodi Maverik Gas Station Traffic Study Technical Memorandum* (Traffic Memo) prepared by GHD (dated September 30, 2024). Based on the Traffic Memo, the project would result in a gross total of 11,053 daily vehicle trips. However, with internal capture and pass-by trips, the project would result in 4,818 net new trips.

Emergency Backup Generators. Another potential source of operational emissions is stationary equipment such as diesel engines used to power emergency back-up generators. Backup generators would only be used in the event of a power failure and would not be part of the project's normal daily operations. Nonetheless, emissions associated with one backup generator for the proposed gasoline station was included to be conservative. Emissions from an emergency backup generator for the proposed warehouse building was calculated separately from CalEEMod; refer to **Appendix A**. Stationary sources would be subject to SJVAPCD rules and regulations and could require permits from SJVAPCD. The SJVAPCD's permitting process requires the purchase of emission reduction credits (ERC) for any criteria pollutant exceeding the SJVAPCD's New Source Review (NSR) offset requirements. NSR offset requirements provide the basis for the SJVAPCD CEQA thresholds of significance. As such, sources of stationary air pollutant emissions will be required to comply with all applicable SJVAPCD regulations.

Drive-thru Idling Source. Drive-thru idling sources are emissions from motor vehicles, including tailpipe and evaporative emissions, idling in the drive-thru lanes. The drive-thru idling emissions were estimated from CARB's EMission FACtor (EMFAC) projected emissions rates in San Joaquin County and the miles traveled on-site.

Gasoline Dispensing Facility. The proposed project includes 14 vehicle fueling positions and six truck fueling positions. The 14 vehicle fueling positions would dispense gasoline and therefore would be considered a gasoline dispensing facility (GDF). GDFs are regulated by the SJVAPCD, and GDFs require permits from the SJVAPCD. Thus, emissions attributed to the GDF were estimated separately from the area source operational emissions above. The emissions calculations are based on annual daily throughput of 13,440 gallons of gasoline (approximately 4.906 million gallons per year) and 48,000 gallons of diesel (approximately 17.52 million gallons per year). In addition to traffic-related emissions, the GDF is also a source of ROG emissions associated with loading,

storage, refueling of vehicles and spillage that results in evaporative emissions. *Table 5.3-7* also presents the evaporative ROG emissions associated with the proposed GDF. As shown in *Table 5.3-7*, the ROG emissions from the proposed GDF would not result in an exceedance of the SJVAPCD's applicable significance thresholds.

Total Operational Emissions. As seen in *Table 5.3-7*, project operational emissions would not exceed SJVAPCD thresholds. As noted above, the SJVAPCD has set its CEQA significance threshold based on the trigger levels for the federal NSR Program. The NSR Program was created to ensure projects are consistent with attainment of health-based federal ambient air quality standards. The federal ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Therefore, the project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts would occur. Project operational emissions would be less than significant.

Cumulative Short-Term Emissions

The SJVAB is designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ for State standards and nonattainment for O_3 and $PM_{2.5}$ for Federal standards. As discussed above, the project's construction-related emissions would not have the potential to exceed the SJVAPCD significance thresholds for criteria pollutants.

Since these thresholds indicate whether an individual project's emissions have the potential to affect cumulative regional air quality, it can be expected that the project-related construction emissions would not be cumulatively considerable. The SJVAPCD recommends consistency Regulation VIII for all projects whether or not construction-related emissions exceed the thresholds of significance. Compliance with SJVAPCD construction-related mitigation requirements is considered to reduce cumulative impacts at a Basin-wide level. As a result, construction emissions associated with the project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Cumulative Long-Term Impacts

The SJVAPCD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The SJVAPCD developed the operational thresholds of significance based on the level above which a project's individual emissions would result in a cumulatively considerable contribution to the Basin's existing air quality conditions. Therefore, a project that exceeds the SJVAPCD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As shown in *Table 5.3-7*, the project's operational emissions would not exceed SJVAPCD thresholds. As a result, operational emissions associated with the project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Sensitive land uses are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The nearest sensitive receptors to the project site are the single-family residences located adjacent to the east of the project site, along East Kettleman Lane.

Criteria Pollutant Health Impacts

On December 24, 2018, the California Supreme Court issued an opinion identifying the need to provide sufficient information connecting a project's air emissions to health impacts or explain why such information could not be ascertained (*Sierra Club v. County of Fresno* [Friant Ranch, L.P.] [2018] Cal.5th, Case No. S219783).

The SJVAPCD has set its CEQA significance thresholds based on the FCAA, which defines a major stationary source as emitting 10 tons per year. The thresholds correlate with the trigger levels for the federal New Source Review (NSR) Program and SJVAPCD Rule 2201 for new or modified sources. The NSR Program[2] was created by the FCAA to ensure that stationary sources of air pollution are constructed or modified in a manner that is consistent with attainment of health-based federal ambient air quality standards. The federal ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Therefore, projects that do not exceed the SJVAPCD's criteria pollutant emissions thresholds would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts. As shown in *Table 5.3-6* and *Table 5.3-7*, project construction and operational emissions would not exceed SJVAPCD's criteria pollutant emissions thresholds.

Information on health impacts related to exposure to ozone and particulate matter emissions published by the U.S. EPA and CARB have been summarized in *Table 5.3-2*. As shown above, project-related emissions would not exceed SJVAPCD's criteria pollutant emissions thresholds, and therefore would not exceed the ambient air quality standards or cause an increase in the frequency or severity of existing violations of air quality standards. Therefore, sensitive receptors would not be exposed to criteria pollutant levels in excess of the health-based ambient air quality standards.

Health Risk Assessment

A Health Risk Assessment was prepared for the proposed Project and is included in **Appendix B: Health Risk Assessment**. CARB identified DPM as a TAC in 1998. Mobile sources (including trucks, buses, automobiles, trains, ships, and farm equipment) are by far the largest source of diesel emissions. The exhaust from diesel engines includes hundreds of different gaseous and particulate

[2] Code of Federal Regulation (CFR) [i.e., PSD (40 CFR 52.21, 40 CFR 51.166, 40 CFR 51.165 (b)), Non-attainment NSR (40 CFR 52.24, 40 CFR 51.165, 40 CFR part 51, Appendix S).

components, many of which are toxic. Diesel exhaust is composed of two phases, either gas or particulate – both contribute to the risk. The gas phase is composed of many of the urban TACs, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, and polycyclic aromatic hydrocarbons. The particulate phase has many different types that can be classified by size or composition. The sizes of diesel particulates of greatest health concern are fine and ultrafine particles. These particles may be composed of elemental carbon with adsorbed compounds such as organics, sulfates, nitrates, metals, and other trace elements. Diesel exhaust is emitted from a broad range of on- and off-road diesel engines. As the Project is proposed near existing residences, an analysis of DPM was performed using the U.S. EPA-approved AERMOD model.

Benzene is also a TAC. The majority of benzene emitted in California comes from motor vehicles, including evaporative leakage and unburned fuel exhaust. Benzene is highly carcinogenic and occurs throughout California. Benzene also has non-cancer health effects. As the Project is proposing to dispense gasoline, an analysis of benzene was performed using the U.S. EPA-approved AERMOD model.

According to OEHHA, if multiple substances are emitted, the non-cancer risk from each of the individual substances is summed only if they affect the same organ system. While DPM is particularly associated with increased potential for lung cancer, diesel exhaust has many individual substances contained in it, including benzene. Therefore, the non-cancer risk from each of the Project-emitting substances, DPM and benzene, are summed to give the total non-cancer risk for the entire facility at the receptor location. Cancer risks from different substances are treated additively in the Hot Spots Program in part because many carcinogens act through the common mechanism of DNA damage. However, this assumption fails to take into account the limited information on substance interactions. The overall uncertainty in the cancer potency factors and the variability in the human population is probably far greater than the uncertainty from the assumption of additivity.

Carcinogenic Risk. The Project would generate TACs from construction and operations (i.e. truck traveling along local roads, idling, and on-site circulation; backup generator; fueling activities and drive-thru idling). The Project would be required to install vapor recovery systems per CARB's ATCM, comply with CARB's Vapor Recovery System Certification Procedure, and Use Enhanced Conventional (ECO) and Enhanced ORVR-Vehicle Recognition (EOR) nozzles, among others. The Project would also be required to comply with SJVAPCD Rule 4622 (Gasoline Transfer Into Motor Vehicle Fuel Tanks), which would reduce fueling emissions.

Table 5.3-8: Carcinogenic Risk Assessment shows the unmitigated health risk for Project construction and operations. Based on SJVAPCD methodology, the exposure duration for a resident is 70 years, beginning with the third trimester, and the worker and student exposure duration is 40 years and 9 years, respectively. Operations would commence following construction. As such, construction would not overlap with operations. The analysis calculates risk based on exposure to construction concentrations during the initial 12 months of the exposure duration and operational concentrations for the remainder of the exposure duration. The Project (construction

and operations combined scenario) would result in a maximum cancer risk of 9.69 in one million at the nearest residential receptors, 2.63 in one million at the nearest worker receptors, and 0.44 in one million at the nearest student receptors. Therefore, the SJVAPCD threshold of 20 in one million would not be exceeded at the nearest receptors and impacts would be less than significant.

Table 5.3-8: Carcinogenic Risk Assessment

Receptors	Cancer Risk (per million)[1, 2]				
		Operations			
	Construction	Trucks + Generator	Gas Dispensing Facility + Drive-thru Idling	Total Operations	Construction and Operations Combined[3]
Residences					
Approximately 75 feet west (652843.96, 4220031.3)	1.08	3.68	0.72	4.40	6.07
Approximately 75 feet west (652843.96, 4220111.3)	1.46	4.29	2.01	6.30	8.45
Adjacent to the east (653091.77, 4220073.8)	4.73	1.80	1.24	3.04	9.69
Adjacent to the east (653092.17, 4220089.4)	3.88	1.64	1.25	2.89	8.35
Significance Threshold (Risk per Million)	*20*	*20*	*20*	*20*	*20*
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**	**No**
Worker Exposure					
Approximately 75 feet west (652843.96, 4220051.3)	0.04	0.66	1.38	2.04	2.63
Significance Threshold (Risk per Million)	*20*	*20*	*20*	*20*	*20*
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**	**No**
Student Exposure					
Lodi Seventh-Day Adventist Elementary School located approximately 1,315 feet northwest (652476.56, 4220202.55)	0.01	0.08	0.19	0.27	0.44
Lodi Academy High School located approximately 1,720 feet northwest (652456.56, 4220442.55)	0.01	0.07	0.15	0.22	0.36
Significance Threshold (Risk per Million)	*20*	*20*	*20*	*20*	*20*
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**	**No**

1. The reported risk is at the closest receptor (maximally exposed individual receptor (MEIR) for each exposure category.
2. Risk from "Construction" and "Trucks + Generator" is from PM_{10} and risk from the "Gas Dispensing Facility + Drive-thru Idling" is benzene.
3. As cancer risk accumulates over time, the combined risk evaluates cancer risk with operational exposure starting at the end of construction. The combined risk assumes construction exposure starts from the third trimester for a year (12-month construction period) and operational exposure starts immediately after construction continues for the specified exposure duration (refer to **Appendix B**).

Refer to **Appendix B** for modeling assumptions and outputs.

Non-Carcinogenic Risk. The significance thresholds for TAC exposure also require an evaluation of non-cancer risk stated in terms of a hazard index. Non-cancer chronic impacts are calculated by

dividing the annual average concentration by the REL for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The potential for acute non-cancer hazards is evaluated by comparing the maximum short-term exposure level to an acute REL. RELs are designed to protect sensitive individuals within the population. The calculation of acute non-cancer impacts is similar to the procedure for chronic non-cancer impacts.

RELs are designed to protect sensitive individuals within the population. According to OEHHA, the REL for DPM is 5 and the target organ is the respiratory system.[3] There is no acute REL for DPM and the acute health risk cannot be calculated. The chronic and acute REL for benzene is 3 and 27, respectively and the target organ is the hematologic system.

Acute and chronic impacts are shown in *Table 5.3-9: Chronic and Acute Hazard Assessment Results*. An acute or chronic hazard index of 1.0 is considered individually significant. The hazard index is calculated by dividing the acute or chronic exposure by the reference exposure level. *Table 5.3-9* shows that non-carcinogenic hazards are calculated to be within acceptable limits and a less than significant impact would occur.

Table 5.3-9: Chronic and Acute Hazards Assessment Results

Emissions Sources	Chronic Hazard	Acute Hazard
Residential Receptors		
Construction	0.011	N/A
Trucks + Generator	0.002	N/A
Gas Dispensing Facility + Drive-thru Idling	0.010	0.037
Threshold	*1.0*	*1.0*
Threshold Exceeded?	**No**	**No**
Worker Receptors		
Construction	0.003	N/A
Trucks + Generator	0.001	N/A
Gas Dispensing Facility + Drive-thru Idling	0.005	0.023
Threshold	*1.0*	*1.0*
Threshold Exceeded?	**No**	**No**
Student Receptors		
Construction	<0.001	N/A
Trucks + Generator	<0.001	N/A
Gas Dispensing Facility + Drive-thru Idling	<0.001	0.003
Threshold	*1.0*	*1.0*
Threshold Exceeded?	**No**	**No**
Refer to **Appendix B** for modeling data**.**		

[3] California Office of Environmental Health Hazard Assessment, *OEHHA Acute, 8-hour and Chronic Reference Exposure Level (REL) Summary*, https://oehha.ca.gov/air/general-info/oehha-acute-8-hour-and-chronic-reference-exposure-level-rel-summary, accessed January 2025.

As concluded above, impacts related to cancer risk would be less than significant. Additionally, non-carcinogenic hazards are calculated to be within acceptable limits. It should be noted that the impacts assess the Project's incremental contribution to health risk impacts, consistent with the OEHHA guidance and methodology. The SJVAPCD has not established separate cumulative thresholds and does not require combining impacts from cumulative projects. The SJVAPCD considers projects that do not exceed the project-specific thresholds to generally not be cumulatively significant. Therefore, impacts related to health risk from the Project would be less than significant.

Carbon Monoxide Hotspots

Local air quality is a major concern along roadways. CO is a primary pollutant, and unlike ozone, is directly emitted from a variety of sources. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of its impacts upon the local air quality. Areas of vehicle congestion have the potential to create "pockets" of CO called "hot spots." These pockets have the potential to exceed the 1-hour CAAQS of 20 parts per million (ppm) and/or the 8-hour CAAQS of 9 ppm.

To identify CO hotspots, SJVAPCD recommends performing a CO hotspot preliminary screening analysis using the following thresholds:

- A traffic study for the project indicates that the Level of Service (LOS) on one or more streets or at one or more intersections in the project vicinity will be reduced to LOS E or F; or
- A traffic study indicates that the project will substantially worsen an already existing LOS F on one or more streets or at more or more intersections in the project vicinity.

As described in Section 5.17, Transportation, eight of the nine study intersections in the project area would operate at an acceptable LOS. The intersection at Pixley Parkway and East Kettleman Lane is currently operating at an unacceptable LOS F during PM Peak Hours and would further operate at an LOS F with implementation of the project. However, the project would not substantially worsen the existing LOS at the Pixley Parkway and East Kettleman Lane intersection. Further, the project would not reduce the LOS at any intersections in the project area. Therefore, the project would not result in a CO hotspot and impacts would be less than significant.

d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?

Less Than Significant Impact.

According to the SJVAPCD, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. The project does not include any uses identified by the SJVAPCD as being associated with odors.

Construction

Construction activities associated with the project may generate detectable odors from heavy duty equipment (i.e., diesel exhaust), as well as from architectural coatings and asphalt off-gassing. Odors generated from the referenced sources are common in the man-made environment and are

not known to be substantially offensive to adjacent receptors. Any construction-related odors would be short-term in nature and cease upon project completion. As a result, impacts to existing adjacent land uses from construction-related odors would be short-term in duration and therefore would be less than significant.

Operations

As noted above, the project does not include any uses identified by the SJVAPCD as being associated with odors. Moreover, the project is not located in the vicinity of any existing or planned land uses that would be considered major sources of odors. Nonetheless, the project would be subject to the SJVAPCD's Rule 4102, which allows members of the public to submit complaints regarding odor. Impacts would be less than significant.

Cumulative Impacts

The SJVAPCD does not include separate significance thresholds for cumulative operational emissions. As discussed in 5.3 (b) above, the project would not exceed the any SJVAPCD criteria pollutant thresholds during construction or operations. Therefore, the project would not conflict with or delay the implementation of SJVAPCD attainment plans and would result in a less than significant impact. The SJVACPD notes that the nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size by itself to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Consistency with the SJVAPCD control measures would ensure that the project would not cumulatively contribute to air quality impacts in the SJVAB. Therefore, the project's cumulative contribution of air quality emissions would be less than significant, and the project's cumulative air quality impacts would also be less than cumulatively considerable.

5.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
BIOLOGICAL RESOURCES. Would the project:				
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?			**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**	

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?

Less Than Significant with Mitigation Incorporated. Special status species includes plant and/or wildlife species that are legally protected under the federal Endangered Species Act, the California Endangered Species Act, or other regulations, or are considered rare enough by the scientific community and trustee agencies to warrant special consideration.

The project is in an urbanized area with substantial existing development. This includes business park and commercial land uses to the north, SR 99 to the west, and additional commercial uses in the vicinity. The project area has been heavily disturbed with previous agricultural uses. Therefore, the site is not expected to support substantial plant and wildlife beyond what currently exists. Furthermore, the project site has not been identified in the San Joaquin County Multispecies Habitat Conservation & Open Space Plan (SJMSCP) as a conservation area. Due to lack of suitable habitat, no special-status plant species are expected to occur. While project area may have had the previously provided habitat for special-status wildlife species at some time in the past, historical farming and urban development have substantially modified natural habitats in the greater project vicinity. Nonetheless the project site may be potentially suitable habitat for both burrowing owl and Crotch's bumble bee; therefore, the project could have potentially significant impacts on these species.

Special-Status Plants

No special-status plants have the potential to occur within the study area, which is composed of disturbed agricultural land and developed areas. There are no natural communities capable of supporting special-status plants within the study area. There would be no impact to special-status plants and natural communities.

Special-Status Wildlife

Burrowing owl was determined to have a moderate potential to occur within the study area based upon known ranges, habitat preferences for the species, existing conditions, and the presence of suitable small mammal burrows. Therefore, the project could have potentially significant impacts on this species. **Mitigation Measures MM BIO-1** through **MM BIO-3** would reduce impacts to burrowing owl to less than significant.

Crotch's bumble bee was also determined to have a moderate potential to occur within the study area based upon the presence of potentially suitable foraging plants and small mammal burrows potentially suitable for nesting. Therefore, the project could have potentially significant impacts on this species. **Mitigation Measures MM BIO-2** through **MM BIO-4** would reduce impacts to Crotch's bumble bee to less than significant.

The study area contains habitat with the potential to support nesting birds, including raptors, protected under the California Fish and Game Code (CFGC) and the Federal Migratory Bird Treaty Act (MBTA). Therefore, the project could result in direct or indirect impacts to nesting birds. Implementation of **Mitigation Measures MM BIO-2**, **MM BIO-3**, and **MM BIO-4** would reduce the potential direct and indirect impacts to special status avian species to less than significant.

MM BIO-1: **Pre-Construction Survey and Impact Avoidance for Burrowing Owls, Raptors, and Other Nesting Birds.** To prevent the loss of active special status and non-special status bird nests, juveniles or adults, project activities including vegetation clearing shall be conducted outside of the breeding season (February 1 through August 31) to the extent feasible.

If project activities would occur between February 1 and August 31, a pre-construction nesting bird survey shall be conducted by a qualified biologist no more than 7 working days prior to the activity to survey for special-status and non-special-status bird and raptor nests. The survey area shall include the project footprint and a 100-foot buffer for passerine species, a 300-foot buffer for burrowing owls, and a 300-foot buffer for raptor species. Following the survey, the following shall be implemented:

- A nesting bird survey report shall be submitted prior to the initiation of project activities. The report shall detail the results of the survey including identification of the location of any active nests and make a determination if ongoing monitoring should be conducted and/or no-disturbance buffers should be established.
- If active nests are identified during the survey and/or work is scheduled to take place within 100 feet of active passerine nests, 300 feet of active burrowing owl burrows, or 300 feet of active raptor nests, a qualified biologist shall determine appropriate no-disturbance buffers. The buffer shall be the minimum distance required to avoid take of the nest and shall be determined based on the species identified, activities proposed, level of existing noise, and line of sight from the disturbance to the nest.
- A qualified biological monitor shall be present at the initiation of project activities occurring within 100 feet of active passerine nests, 300 feet of active burrowing owl burrows, or 300-feet of active raptor nests, to ensure that project activities do not negatively affect the success of the nest. Duration and frequency of monitoring shall be determined at the discretion of the qualified biologist.
- If nesting bird monitoring is conducted, a nesting bird monitoring report shall be submitted to the City detailing the results of monitoring activities. The report shall be submitted within 30 days of the completion of the activities or nesting season.

MM BIO-2: **Worker Environmental Awareness Program (WEAP)**. Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend a Worker Environmental Awareness Program (WEAP) training, conducted and prepared by a qualified biologist, to aid workers in recognizing special-status species, native or nesting birds and other biological resources that may occur in the construction area. The specifics of this program would include identification and habitats of special-status species with potential to occur at the project site, a description of the regulatory status and general ecological characteristics of sensitive resources, a review of the limits of construction, and an explanation of the mitigation measures required to

reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared by the qualified biologist for distribution to all contractors, their employers, and other personnel involved with construction. All personnel shall sign a form provided by the trainer indicating they have attended the WEAP and understand the information presented to them.

MM BIO-3: **General Best Management Practices.** The following General Best Management Practices (BMPs) would be implemented by project personnel:

- Prior to mobilization, the contractor would clearly delineate the project limits and prohibit any project-related work outside those boundaries.
- Project-related vehicles would observe a 5-mile-per-hour speed limit within the unpaved limits of the project.
- All food-related trash items such as wrappers, cans, bottles, and food scraps generated during the proposed project would be disposed of in closed containers only and removed daily from the project site.
- No deliberate feeding of wildlife would be allowed.
- No pets would be allowed on the project site.
- No firearms would be allowed on the project site.
- If vehicle or equipment maintenance is necessary, it would be performed in the designated staging areas.
- If project activities must occur at night (between dusk and dawn), all lighting would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties and to reduce impacts on local wildlife.
- Heavy equipment would be operated in accordance with standard BMPs. Equipment used on-site would be properly maintained to avoid leaks of oil, fuel, or residues. Provisions would be in place to remediate any accidental spills.

MM BIO-4: **Pre-construction Survey and Impact Avoidance for Crotch's Bumble Bee**.

1. To avoid impacts to Crotch's bumble bee, removal of habitat in the proposed area of disturbance would occur outside of the colony active period between April 1 through August 31, as feasible. Regardless of the timing of the project activities, a qualified biologist with experience in surveying for Crotch's bumble bee conduct a pre-project survey within a year prior to the start of project activities to determine their presence/absence. Surveys would be conducted during the colony active period and consult the methodology developed consistent with CDFW's *Survey Consideration for CESA Candidate Bumble Bee Species*. If any bumble bees are determined to be present, then a photographic survey following CDFW guidance would be required. If additional activities, such as capturing or handling, are deemed necessary based on photographic surveys, then the qualified biologist would obtain required authorization via a Memorandum of Understanding or Scientific Collecting Permit in consideration of CDFW's *Survey Considerations*. Survey methods that involve lethal take of species would not be acceptable. Alternative methods of surveys may be approved by CDFW on a project-by-project basis.

2. The qualified biologist would demonstrate at least 40 hours of experience surveying for bee or other co-occurring aerial invertebrate species (like Quino) and who have completed a Crotch's bumble bee detection/identification training by an expert Crotch's bumble bee entomologist; or 20 hours of experience directly observing Crotch's bumble bee.
3. The pre-project surveys shall be conducted by the qualified biologist within one year prior to the start of construction activities, including any vegetation removal, and should include a minimum of 3 visits a minimum of 1 week apart.
4. The qualified biologist/project proponent would submit the results of the pre-project surveys to CDFW for review and written approval prior to initiating any project activities.
5. If pre-project surveys identify active Crotch's bumble bee nest colonies or foraging individuals, the qualified biologist would notify CDFW in writing and establish, monitor, and maintain no-work buffers around the nest(s) and any associated floral resources. The size and configuration of the no-work buffer would be based on best professional judgment of the qualified biologist in consultation with CDFW. At a minimum, the buffer would provide at least 50 feet of clearance from project activities around any nest entrances and maintain disturbance-free airspace between the nest and nearby floral resources. Project activities would not occur within the no-work buffers until the colony is no longer active, such as when no bees are seen flying in or out of the nest for 3 consecutive days indicating the colony has completed its nesting season and the next season's queens have dispersed from the colony.

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?

Less Than Significant Impact. As there are no streams on or near the project site, there is no riparian habitat. Additionally, the US Fish and Wildlife Service did not identify any other sensitive natural communities on the National Wetlands Mapper Inventory. The project would have a less than significant impact on these habitats.

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?

Less Than Significant Impact. As identified from the US Fish and Wildlife National Wetlands Mapper, there are no protected wetlands or waterways within the project site. Therefore, there would be no impacts to jurisdictional waters and wetlands.

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?

Less Than Significant with Mitigation Incorporated. No significant wildlife movement corridors or habitat linkages are present in the study area. Due to the relatively concentrated nature of development and agricultural lands surrounding the study area, the study area contains limited amount of valuable habitat within the study area. Nonetheless, there is at least one existing tree that may be removed as a result of the project that could be used by raptors and other migratory birds during their nesting seasons. If these trees are removed during nesting seasons for these birds, this could have a direct, adverse impact. However, with the implementation of **Mitigation Measure MM BIO-1**, impacts would be reduced to a level that would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact. No resources protected by local policies or ordinances were observed within the study area. There are no trees within the public right-of-way that would require removal. Therefore, the project would not conflict with any existing tree preservation policy or ordinance, and conflicts with local policy are not expected. Conflicts with any local policies or ordinances protecting biological resources would be less than significant.

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?

Less Than Significant Impact. The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) is a multi-species, multi-habitat, multi-purpose open space management program for all of San Joaquin County. The SJMSCP is a 50-year Plan (2001 – 2051) that provides compensation for the conversion of open space to non-open space uses which affect the plant, fish, and wildlife species covered by the Plan. The Plan also includes some compensation to offset the impacts of open space conversions on non-wildlife related resources such as recreation, agriculture, scenic values, and other beneficial open space. The SJMSCP provides three compensation methods: preservation of existing sensitive lands, creation of new comparable habitat on the project site, or payment of fees that would be used to secure preserve lands outside the project site. In addition to fee payments, the SJMSCP identifies and requires the applicants to abide by Incidental Take Minimization Measures (ITMMs), which are protection measures that avoid direct impacts of development on special-status species (SJCOG 2000). The SJCOG implements the SJMSCP on a project-by-project basis.

The project site falls within the SJMSCP and is considered *Multi-Purpose Open Space Land* within the *Central Zone* of the SJMSCP Index Zones. Because of the relatively limited importance of Multi-Purpose Open Space Lands to SJMSCP Covered Species, the SJMSCP Biological Analysis and the Permitting Agencies determined that activities contributing to the Conversion of SJMSCP Multi-Purpose Open Spaces does not require compensation in the form of establishing Preserves.

However, the project may be required to provide financial compensation to the SJMSCP Preserve system. The would comply with the SJMSCP and potential impacts would be less than significant.

Cumulative Impacts

The project site consists of level agricultural and developed land. To the west of the project site, west of SR 99, is predominantly developed, including residential, commercial, and industrial uses. To the direct north of the project site consists of commercial land uses and farther north consist of industrial land uses. The surrounding area consists of developed land or previously disturbed undeveloped land. Therefore, the proposed project would not be cumulatively considerable. In addition, the site in not located within a known habitat corridor and does not contain any riparian habitat, federally protected wetlands, or other sensitive natural communities. Though the project is located within the SJMSCP, the project would comply with SJMSCP requirements. Therefore, overall, with the above-mentioned implementation the project would have a less than significant impact on biological resources.

5.5 CULTURAL RESOURCES

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?			**X**	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		**X**		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?			**X**	

a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?

Less Than Significant Impact. A Cultural Resources Study for the project site was conducted by Rincon Consultants, Inc. on November 2024 (**Appendix C: Cultural Resources Study**). Background research identified a former single-family residence within the project site from 1939 to 2016. The field survey confirmed that the residence is no longer extant. Because the residence is no longer extant, it cannot be evaluated as a historical resource. Additionally, there is a power line pole at the northwest corner of the project site, installed in approximately 2002 when the transmission line along Kettleman Lane was installed (NETR Online 2024). A customer-owned pole not constructed as part of the utility-owned line, is a simple wood pole design. Because it is less than 45 years old, the threshold generally considered for historical significance, in addition to its ubiquitous design, and lack of potential significance, this utility line was not recorded or evaluated for the purposes of the current study. Therefore, the project would have no impact on historical resources.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less Than Significant with Mitigation Incorporated. No archaeological resources or archaeological deposits in the project site were identified. A water pump and water feature along with other utilities are still extant within the project site near the location of the former single-family residence identified on the project site between 1939 and 2016. To be considered an historical resource, a resource must have historic significance and sufficient integrity to convey that significance. As these features could not be directly associated with the former single-family residence and no longer retain historic integrity, they were not further recorded or evaluated for the purposes of the current study.

Further, the archival research, records search, geologic unit and soil mapping, negative SLF results, and general disturbance of the property from agricultural use and development indicate a low sensitivity for subsurface Native American archaeological resources. However, while archaeological testing in the area of highest potential for historic-period archaeological resources were negative, the presence of a historic-period structure and historic-period use of the property suggest there is sensitivity for encountering subsurface historic-period. Additionally, there is always the potential to encounter unanticipated archaeological resources during ground disturbing activities. Therefore, **Mitigation Measure MM CUL-1** addresses a mitigation measure for unanticipated discoveries during construction. With adherence to this measure, the impact on archeological resources will be less than significant with mitigation incorporated.

As indicated above there were no archaeological resources found on-site, this is substantiated through a CHRIS records search, a Sacred Lands File search, archival and background research, a pedestrian survey, an extended phase I (XPI) archaeological testing on the project site, review of historical topographic and aerial imagery, and a pedestrian survey. However, the absence of substantial surface prehistoric or historic-period archeological remains within the project vicinity and the existing level of disturbance does not preclude the possibility of subsurface resources. Though the circumstances would present a low possibility, the following mitigation measure (MM) would reduce impacts in the unanticipated discovery of archaeological resources during construction. With the implementation of MM CUL-1, impacts would be less than significant.

MM CUL-1: **Unanticipated Discovery of Cultural Resources.** In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the resource. If the resource is determined by the qualified archaeologist to be prehistoric, then a Native American representative shall also be contacted to participate in the evaluation of the resource. If the qualified archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via project redesign, a qualified archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of the California Code of Regulations (CCR) Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the qualified archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. The City shall review and approve the treatment plan and archaeological testing as appropriate, and the resulting documentation shall be submitted to the regional

repository of the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact. No human remains are known to be present within the project site. If human remains are found, those remains would require proper treatment in accordance with applicable laws, including Health and Safety Code (HSC) §§ 7050.5-7055 and PRC § 5097.98 and § 5097.99. HSC §§ 7050.5-7055 describe the general provisions for treatment of human remains. Specifically, HSC § 7050.5 prescribes the requirements for the treatment of any human remains that are accidentally discovered during excavation of a site. HSC § 7050.5 also requires that all activities cease immediately, and a qualified archaeologist and Native American monitor be contacted immediately. As required by state law, the procedures set forth in PRC § 5097.98 would be implemented, including evaluation by the County Coroner and notification of the Native American Heritage Commission (NAHC). The NAHC would then designate the "Most Likely Descendent" of the unearthed human remains. If human remains are found during excavation, excavation would be halted in the vicinity of the discovery and any area that is reasonably suspected to overlay adjacent remains shall remain undisturbed until the County Coroner has investigated, and appropriate recommendations have been made for the treatment and disposition of the remains.

Compliance with the established regulatory framework (i.e., HSC § 7050.5-7055 and PRC §§ 5097.98 and 5097.99) would ensure potential project impacts concerning human remains are reduced to less than significant

Cumulative Impacts

Overall, the project would not cause a considerable impact to historical cultural resources, archaeological cultural resources, or human remains. Due to the project location and previously disturbed project site ground, and the addition of the above listed mitigation measures the proposed project would not cause a cumulatively considerable impact to occur.

5.6 ENERGY

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
ENERGY. Would the project:				
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**	

REGULATORY SETTING

State

Renewable Energy Standards

In 2002, California established its Renewable Portfolio Standard program[4] with the goal of increasing the annual percentage of renewable energy in the state's electricity mix by the equivalent of at least 1 percent of sales, with an aggregate total of 20 percent by 2017. The California Public Utilities Commission subsequently accelerated that goal to 2010 for retail sellers of electricity (Public Utilities Code Section 399.15(b)(1)). Then-Governor Schwarzenegger signed Executive Order S-14-08 in 2008, increasing the target to 33 percent renewable energy by 2020. In September 2009, then-Governor Schwarzenegger continued California's commitment to the Renewable Portfolio Standard by signing Executive Order S-21-09, which directs the California Air Resources Board under its Assembly Bill (AB) 32 authority to enact regulations to help the State meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020. In September 2010, the California Air Resources Board adopted its Renewable Electricity Standard regulations, which require all of the State's load-serving entities to meet this target. In October 2015, then-Governor Brown signed into legislation Senate Bill 350, which requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030. Signed in 2018, Senate Bill (SB) 100 revised the goal of the program to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

[4]The Renewable Portfolio Standard is a flexible, market-driven policy to ensure that the public benefits of wind, solar, biomass, and geothermal energy continue to be realized as electricity markets become more competitive. The policy ensures that a minimum amount of renewable energy is included in the portfolio of electricity resources serving a state or country.

2008 California Energy Action Plan

The 2008 Energy Action Plan Update provides a status update to the 2005 Energy Action Plan II, which is the State of California's principal energy planning and policy document. The plan continues the goals of the original Energy Action Plan, describes a coordinated implementation plan for State energy policies, and identifies specific action areas to ensure that California's energy is adequate, affordable, technologically advanced, and environmentally sound. First-priority actions to address California's increasing energy demands are energy efficiency, demand response (i.e., reduction of customer energy usage during peak periods in order to address system reliability and support the best use of energy infrastructure), and the use of renewable sources of power. If these actions are unable to satisfy the increasing energy and capacity needs, the plan supports clean and efficient fossil-fired generation.

Building Codes

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977 and are updated every three years (Title 24, Part 6, of the California Code of Regulations). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On May 9, 2018, the California Energy Commission (CEC) adopted the 2019 Building Energy Efficiency Standards, which went into effect on January 1, 2020. The 2022 Standards were adopted in August 2021 and went into effect in January 2023.

The 2022 Standards improve upon the previous 2019 Standards. Among other updates like strengthened ventilation standards for gas cooking appliances, the 2022 Energy Code includes updated standards in three major areas:

- New electric heat pump requirements for residential uses, schools, offices, banks, libraries, retail, and grocery stores.
- The promotion of electric-ready requirements for new homes including the addition of circuitry for electric appliances, battery storage panels, and dedicated infrastructure to allow for the conversion from natural gas to electricity.
- The expansion of solar photovoltaic and battery storage standards to additional land uses including high-rise multifamily residences, hotels and motels, tenant spaces, offices, (including medical offices and clinics), retail and grocery stores, restaurants, schools, and civic uses (including theaters auditoriums, and convention centers)

Buildings whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 Energy Code.

California Green Building Standards Code

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. CALGreen standards require new residential and commercial buildings to

comply with mandatory measures under five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. CALGreen also provides voluntary measures (CALGreen Tier 1 and Tier 2) that local governments may adopt which encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code was adopted in 2022 and went into effect January 1, 2023.

2006 Appliance Efficiency Regulations

The California Energy Commission adopted Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) on October 11, 2006. The regulations were approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both Federally regulated appliances and non-Federally regulated appliances. While these regulations are now often viewed as "business-as-usual," they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

California Utility Efficiency Programs (Senate Bill 1037 and Assembly Bill 2021)

SB 1037 and AB 2021 require electric utilities to meet their resource needs first with energy efficiency. California Utility Efficiency Programs have also set new targets for statewide annual energy demand reductions.

Local

City of Lodi General Plan

The City of Lodi General Plan (General Plan) includes policies targeting energy applicable to development projects in Lodi, including the following which are applicable to the project:

C-G9: Conserve energy and reduce per capita energy consumption.

CD-G9: Encourage green building and construction in new development and renovations.

C-P38: Encourage the development of energy efficient buildings and communities. All new development, including major rehabilitation, renovation, and redevelopment projects, shall incorporate energy conservation and green building practices to the maximum extent feasible and as appropriate to the project proposed. Such practices include, but are not limited to: building orientation and shading, landscaping, and the use of active and passive solar heating and water systems. The City may implement this policy by adopting and enforcing a Green Building Ordinance.

CD-P38: Promote location and siting of buildings that minimizes energy use by features such as enhancing use of daylight, minimizing summer solar gain, and use of ventilating breezes.

CD-P40: Prepare, or incorporate by reference, and implement green building and construction guidelines and/or standards, appropriate to the Lodi context, by 2012. The guidelines and/or standards shall ensure a high level of energy efficiency and reduction of environmental impacts associated with new construction, major renovation, and operations of buildings. Ensure that these guidelines/standards:

- Require documentation demonstrating that building designs meet minimum performance targets, but allow flexibility in the methods used.
- Exceed California's 2005 Title 24 regulation standards for building energy efficiency by 15%, with particular emphasis on industrial and commercial buildings.
- Reduce resource or environmental impacts, using cost-effective and well-proven design and construction strategies.
- Reduce waste and energy consumption during demolition and construction.
- Identify street standards, such as street tree requirements, appropriate landscaping practices, and acceptable materials.
- Incorporate sustainable maintenance standards and procedures.
- Promote incorporation of energy conservation and weatherization features in existing structures. Develop programs that specifically target commercial and industrial structures for energy conservation and weatherization measures in order to reduce annual kWh per job.

ENVIRONMENTAL IMPACTS

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

Less Than Significant Impact.

Construction

The energy consumption associated with construction of the proposed project includes primarily diesel fuel consumption from on-road hauling trips and off-road construction diesel equipment, and gasoline consumption from on-road worker commute and vendor trips. The amount of electricity used during construction would be minimal; typical demand would stem from the use of electrically powered hand tools and several construction trailers by managerial staff during the hours of construction activities. The majority of the energy used during construction would be from petroleum. This analysis relies on the construction equipment list and operational characteristics, as provided in the California Emissions Estimator Model version 2022.1 (CalEEMod) outputs for the project; see **Appendix A**. Energy consumption associated with project construction is summarized in *Table 5.6-1: Project Energy Consumption During Construction*.

Table 5.6-1: Project Energy Consumption During Construction

Source	Total Construction Energy	San Joaquin County Annual Energy Consumption	Percentage Increase Countywide
Electricity Use	**Megawatt Hours (MWh)**		
Water Consumption[1]	0.5521	5,771,280	<0.0001%
Diesel Use	**Gallons**		
On-Road Construction Trips[2]	1,917	84,289,095	0.0023%
Off-Road Construction Equipment[3]	24,608		0.0292%
Construction Diesel Total	***26,525***	***84,289,095***	***0.0315%***
Gasoline	**Gallons**		
On-Road Construction Trips[2]	1,268	262,971,107	0.0005%

1. Construction water use based on acres disturbed per day per construction sequencing and estimated water use per acre.
2. On-road mobile source fuel use based on vehicle miles traveled (VMT) from CalEEMod and fleet-average fuel consumption in gallons per mile from EMFAC2021 in San Joaquin County for construction year 2025.
3. Construction fuel use was calculated based on CalEEMod emissions outputs and conversion ratios from the Climate Registry.
4. Total Construction Energy is the combined energy usage over approximately 12 months of construction.

Abbreviations:
CalEEMod: California Emission Estimation Model; EMFAC: Emission Factor Model 2021;
Source: Refer to energy calculations in **Appendix A**.

In total, construction of the project would consume approximately 0.5521 megawatt hours (MWh) of electricity, 26,525 gallons of diesel, and 1,268 gallons of gasoline. Electricity use associated with construction water consumption would represent less than 0.0001 percent of the County's water consumption. The project's fuel from the entire construction period would increase fuel use in the County by approximately 0.032 percent for diesel and 0.0005 percent for gasoline.

There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or state. In addition, some incidental energy conservation would occur during construction through compliance with State requirements that equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) engine emissions standards. These engines use highly efficient combustion engines to minimize unnecessary fuel consumption.

The CEQA Guidelines Appendix G and Appendix F criteria requires the project's effects on local and regional energy supplies and on the requirements for additional capacity to be addressed. An approximate 0.032 percent increase in construction fuel demand is not anticipated to trigger the need for additional capacity. Fuel consumption is based on a conservative construction phasing and conservative estimates for annual construction fuel consumption. Longer phases would result in lower construction intensity and a lower annual fuel consumption, resulting in lower annual demand on energy supplies. Additionally, use of construction fuel would cease once the project is

fully developed. As such, project construction would have a nominal effect on the local and regional energy supplies. Therefore, it is expected that construction fuel consumption associated with the project would not be inefficient, wasteful, or unnecessary. The project would not substantially affect existing energy or fuel supplies, or resources and new capacity would not be required. Impacts would be less than significant in this regard.

Operations

Project energy consumption would include building electricity, water, and natural gas usage, as well as fuel usage from on-road vehicles. The project's annual energy use during operations is shown in *Table 5.6-2: Annual Energy Consumption During Operations*. Project operations would annually consume approximately 1,561 MWh of electricity, 19,909 therms of natural gas, 121,288 gallons of diesel, and 155,625 gallons of gasoline.

Table 5.6-2: Annual Energy Consumption During Operations

Source	Project Operational Usage	San Joaquin County Annual Energy Consumption	Percentage Increase Countywide
Electricity Use	**Megawatt Hour (MWh)**		
Area [1]	1,542	5,771,280	0.0267%
Water[1]	19		0.0003%
Total Electricity	1,561		0.0270%
Natural Gas Use	**Therms**		
Area [1]	19,909	187,299,397	0.0106%
Diesel Use	**Gallons**		
Mobile [2]	121,288	83,986,035	0.1444%
Gasoline Use	**Gallons**		
Mobile [2]	155,625	258,173,328	0.0603%

Notes:
1. The electricity and natural gas usage are based on project-specific estimates and CalEEMod defaults.
2. Calculated based on the mobile source fuel use based on vehicle miles traveled (VMT) and fleet-average fuel consumption (in gallons per mile) from EMFAC2021 for operational year 2026.

Abbreviations: CalEEMod: California Emission Estimation Model; EMFAC2021: California Air Resources Board Emission Factor Model; MWh: Megawatt-hour

Source: Refer to energy calculations in **Appendix A**.

Pacific Gas and Electric (PG&E) provides electricity to the project area. The project site is expected to continue to be served by the existing PG&E electrical facilities. Total electricity demand in PG&E's service area is forecast to increase by approximately 12,000 GWh, or 12 million MWh, between 2016 and 2028.[5] The project's anticipated electricity demand (approximately 1,561 MWh) would be nominal compared to overall demand in PG&E's service area. Therefore, the projected electrical demand would not significantly impact PG&E's level of service.

[5] California Energy Commission, California Energy Demand 2018-2030 Revised Forecast, Figure 49 Historical and Projected Baseline Consumption PG&E Planning Area, April 2018.

Regarding natural gas, San Joaquin County consumed 187,299,397 therms of natural gas in 2022 (the most recent year for which this specific data is available). Therefore, the project's operational energy consumption of natural gas (19,909 therms per year) would represent 0.0106 percent of the natural gas consumption in the County.

In 2026, Californians are anticipated to use approximately 13,429,720,378 gallons of gasoline and approximately 3,179,723,204 gallons of diesel fuel. San Joaquin County annual gasoline fuel use in 2026 is anticipated to be 258,173,328 gallons and diesel fuel is anticipated to be 83,986,035 gallons. Expected project operational use of gasoline and diesel would represent 0.001 percent of current gasoline use and 0.004 percent of current diesel use in the State. Project operational use of gasoline and diesel would represent 0.0603 percent of gasoline use and 0.1444 percent of diesel use, respectively, in the County.

The project would be consistent with the 2022 Building Efficiency Standards, which took effect on January 1, 2023, and/or future Building Energy Efficiency Standards depending on when construction permits are issued. Prior to issuance of a building permit, the City of Lodi would review and verify that the project plans demonstrate compliance with the current version of the Building and Energy Efficiency Standards. Title 24 standards require energy conservation features in new construction (e.g., high- efficiency lighting, high-efficiency heating, ventilating, and air-conditioning [HVAC] systems, thermal insulation, double-glazed windows, water conserving plumbing fixtures).

Additionally, the project would also be required adhere to the provisions of CALGreen, which establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The insulation and design code requirements would minimize wasteful energy consumption.

None of the project energy uses exceed one percent of San Joaquin County use. Therefore, it is expected that operational fuel and energy consumption associated with the project would not be inefficient, wasteful, or unnecessary. Impacts would be less than significant in this regard.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. Project design and operation would comply with State Building Energy Efficiency Standards, applicable General Plan policies, appliance efficiency regulations, and CALGreen standards. As discussed above in Impact a), project development would not cause inefficient, wasteful and unnecessary energy use, and impacts would be less than significant.

The City of Lodi has a Climate Action Plan (CAP), as discussed in Section 5.8, Greenhouse Gas Emissions. The project would be consistent with the City's CAP. Additionally, the project would be consistent with AB 1279, which sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045, thereby encouraging renewable energy and energy consumption reduction; refer to Section 5.8. Specifically, the project would support renewable energy and reduce energy consumption through implementation of

Mitigation Measures MM GHG-1 and **MM GHG-2**. Mitigation Measure MM GHG-1 would require the project to use all-electric appliances and end uses instead of natural gas and Mitigation Measure MM GHG-2 would require the project to meet CALGreen Tier 2 electric vehicle requirements; refer to Section 5.8, Greenhouse Gas Emissions. As such, the project would comply with existing energy standards and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Cumulative Impacts

As discussed above, it is expected that construction fuel consumption associated with the project would not be inefficient, wasteful, or unnecessary. The project would not substantially affect existing energy or fuel supplies, or resources and new capacity would not be required. Additionally, the project would also be required adhere to the provisions of CALGreen, which establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The insulation and design code requirements would minimize wasteful energy consumption. Further, the project would support renewable energy and reduce energy consumption through implementation of Mitigation Measure MM GHG-1 (all-electric development) and Mitigation Measure MM GHG-2 (CALGreen Tier 2). As discussed above, none of the project energy uses would exceed one percent of San Joaquin County energy consumption and it is expected that operational fuel and energy consumption associated with the project would not be inefficient, wasteful, or unnecessary. Therefore, the project's cumulative contribution of energy use would be less than significant, and the project's cumulative energy impacts would also be less than cumulatively considerable.

5.7 GEOLOGY AND SOILS

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

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less Than Significant Impact. The closest known Alquist-Priolo Earthquake Fault Zone is the Greenville Fault located approximately 46 miles southwest. The closest known fault to the project site is the Midland Fault Zone located approximately 23 miles west. There are no earthquake fault zone boundaries or County designated fault zones identified at the project site or within the city of Lodi. The Seismic Hazards Mapping Act, passed in 1990, requires mapping of seismic hazard zones and sets requirements for projects located within such zones. The project site is not within a seismic hazard zone map prepared under the Seismic Hazards Mapping Act (California Geological Survey 2021). Based on this information, the project would have no impact related to fault rupture hazards. Overall, impacts associated with the rupture of a known earthquake fault would be less than significant.

ii) Strong seismic ground shaking?

Less Than Significant with Mitigation Incorporated. The project site, located in the Central Valley has a low shaking potential (DOC, 2016). Design and construction would still comply with the latest 2022 California Building Code (CBC), City regulations, and other applicable state standards which would minimize the potential of strong seismic ground shaking impacts. The CBC provides procedures for earthquake-resistant structural design based on the buildings risk or seismic design category that include considerations for on-site soil conditions, occupancy, and the configuration of the structure including the structural system and height. Compliance with the CBC and the below outlined mitigation measure would ensure seismic group shaking impacts would be at a less than significant level. **Mitigation Measure MM GEO-1** would require the project applicant to submit design level geotechnical study to the City of Lodi for review. Therefore, with the project conforming to the latest CBC Building Codes and Mitigation Measure MM GEO-1, impacts due to strong seismic ground shaking would be less than significant.

MM GEO-1: Prior to issuance of building permits, the project applicant shall submit a design-level geotechnical study and building plans to the City of Lodi for review and approval. The building plans shall demonstrate that they incorporate all applicable recommendations of the design-level geotechnical study and comply with all applicable requirements of the most recent version of the California Building Standards Code. A licensed professional engineer shall prepare the plans, including those that pertain to soil engineering, structural foundations, pipeline excavation, and installation. The approved plans shall be incorporated into the proposed project. All onsite soil engineering activities shall be conducted under the supervision of a licensed Geotechnical Engineer or Certified Engineering Geologist.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant with Mitigation Incorporated. Seismically induced liquefaction occurs when loose, water-saturated sediments of relatively low density are subjected to cyclic shaking that causes soils to lose strength or stiffness because of increased pore water pressure. The project does not fall within or near an Alquist-Priolo Fault Hazard Zone, Landslide Zone, or Liquefaction Zone as designated on the Department of Conservations (DOC) map viewer (DOC, 2024). As the project site is not designated within one of the above zones and all structures included in the project would be required by State law to be constructed in accordance with all applicable IBC and CBC earthquake construction standards, including those relating to soil characteristics, and adherence to Mitigation Measure MM GEO-1. The potential for substantial adverse effects to the project due to seismic-related ground failure, including liquefaction would therefore be less than significant.

iv) Landslides?

Less Than Significant Impact. The project site is located in a generally flat area and does not contain any steep slopes that could result in landslides on or in the vicinity of the project site. Also identified in the Seismic hazards Map by the California Geological Survey, there are no landslide zone boundaries that fall within the project site (DOC, 2011). The project would also conform with all applicable General Plan policies and additional federal, state, and local regulations. Therefore, impacts associated with landslides would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant with Mitigation Incorporated. 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 internal roadways and drain 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 project would result in a potentially significant impact with respect to soil erosion. Mitigation Measure MM HYD-1 requires the project applicant to prepare and submit a Stormwater Pollution Prevention Plan identifying specific actions and BMPs to prevent stormwater pollution during construction activities. The SWPPP shall include, among other things, temporary erosion control measures to be employed for disturbed areas. Implementation of the following mitigation measure, therefore, would ensure the impact is less than significant.

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

Less Than Significant with Mitigation Incorporated. The project site and surrounding areas are generally flat, which is not anticipated to result in significant landslides. As previously mentioned, there are no active faults, Seismic Hazard Program Liquefaction Zones, or Alquist-Priolo Fault Hazard Zones on the project site. Therefore, the potential for lateral spreading, subsidence, liquefaction, or collapse is unlikely. Subsidence is one factor that can cause unstable soil. To further prevent the above adverse effects all project components would be constructed in accordance with applicable City goals and policies, as well as Codes established by the CBC. All construction plans and related geotechnical plans and studies would be reviewed by the City further ensuring compliance with all building construction standards. Compliance with all construction standards would reduce the potential for an off-site landslide, lateral spreading, subsidence, liquefaction or collapse and reduce the impacts to a less than significant level. In addition, the project applicant would be required to submit a geotechnical investigation report to the City as part of Mitigation Measure MM GEO-1. As a result, with implementation of Mitigation Measure MM GEO-1 and the SWPPP, impacts associated would be less than significant.

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?

Less Than Significant with Mitigation Incorporated. 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 would be subjected to volume changes during seasonal fluctuations in moisture content. There are no expansive (i.e., shrink-swell) soils within the project site. According to the USDA Web Soil survey, the project site contains 96.2% Tokay fine sandy loam throughout the site and 3.8% Tokay-Urban land complex soil on the northwest portion (USDA, 2024). Given the soils identified on site, adherence to applicable Federal, State, and Local rules and regulations, and compliance with Mitigation Measure MM GEO-1 impacts would be less than significant.

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?

Less Than Significant Impact. The project site would tie into an existing sewer main within the public right of way. Therefore, the project would not involve a septic system and there would be a less than significant impact from incompatible soils.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant with Mitigation Incorporated. There are no known paleontological resources located in project area. However, development of the proposed project could result in the discovery and disturbance of previously unknown or undiscovered paleontological resources. While fossils are not expected to be discovered during construction, it is possible that significant fossils could be discovered during excavation activities, even in areas with a low likelihood of occurrence. Fossils encountered during excavation could be inadvertently damaged. If a unique paleontological resource is discovered, the impact to the resource could be substantial. Mitigation Measure MM GEO-2 would require that a qualified paleontologist monitor grading and excavation activities, and a paleontologist be notified if paleontological resources are found. If any scientifically important large fossil remains are uncovered, the paleontologist would have the authority to divert heavy equipment away from the fossil site. With implementation of Mitigation Measure MM GEO-2 and consistency with City ordinances, policies and goals, impacts associated with paleontological resources would be less than significant.

MM GEO-2: Paleontological Monitor. Prior to issuance of improvement plans, the City shall ensure that a qualified paleontologist shall be retained to prepare a Paleontological Resources Monitoring and Mitigation Plan (PRMMP). This plan will address specifics of monitoring and mitigation and comply with the recommendations of the Society of Vertebrate Paleontology's 2010 Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. All ground disturbances in the project area that occur in previously undisturbed sediment with high paleontological sensitivity will require monitoring. The project Paleontologist may periodically inspect construction activities to adjust the level of monitoring in response to subsurface conditions. In the event that any potentially significant paleontological resources are discovered, the paleontological monitor shall stop work inside a zone designated by him/her where additional paleontological resources could be found. A plan for the evaluation of the resource shall be submitted to the Community Development Director for approval.

Cumulative Impacts

Geology and soil-related impacts are generally site-specific and are determined by a particular site's soil characteristics, topography, and proposed land uses. Cumulative effects related to geology resulting from the implementation of proposed improvements of the site and surrounding areas could expose more persons and property to potential impacts due to seismic activity. Long-term impacts related to geology include the exposure of people to the potential for seismically induced ground shaking. Implementation of other cumulative projects would incrementally increase the number of people and structures subject to a seismic event. Seismic and geologic significance would be considered on a project-by-project basis through the preparation of a design-level geotechnical study and such exposures would be minimized through strict engineering guidelines as they pertain to protection against known geologic hazards and potential geologic and soil related impacts. The proposed project would not contribute to any cumulatively considerable geologic and/or soils impacts. Therefore, cumulative effects of increased seismic risk would be less than significant.

5.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?		**X**		
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?		**X**		

REGULATORY SETTING

Federal

To date, national standards have not been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007. The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

Additional provisions of the Energy Independence and Security Act (EISA) address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."

U.S. Environmental Protection Agency Endangerment Finding. The U.S. Environmental Protection Agency's (EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants

under the existing Federal Clean Air Act (FCAA) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the EPA finalized an endangerment finding in December 2009. Based on scientific evidence, it found that six GHGs – carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6) – constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing FCAA and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

Federal Vehicle Standards. In response to the U.S. Supreme Court ruling discussed above, Executive Order 13432 was issued in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, an Executive Memorandum was issued directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking. On January 12, 2017, the EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks. It should be noted that the EPA is currently proposing to freeze the vehicle fuel efficiency standards at their planned 2020 level (37 mpg), canceling any future strengthening (currently 54.5 mpg by 2026).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baseline.

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.

On September 27, 2019, the U.S. EPA and the NHTSA published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program." (84 Fed. Reg. 51,310 (Sept. 27, 2019.) The SAFE Rule (Part One) revoked California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the U.S. EPA and NHTSA finalized rulemaking for SAFE Part Two sets CO_2 emissions standards and corporate average fuel economy (CAFE) standards for passenger

vehicles and light duty trucks, covering model years 2021-2026. The current U.S. EPA administration repealed SAFE Rule Part One, effective January 28, 2022, and is reconsidering Part Two.

As of April 1, 2022, the CAFE standards require an industry-wide fleet average of approximately 49 mpg for passenger cars and light trucks in model year 2026. The new CAFE standards for model year 2024-2026 will reduce fuel use by more than 200 billion gallons through 2050, as compared to continuing under the old standards.[6]

Executive Order 14008. On January 27, 2021, President Biden issued an Executive Order on Tackling the Climate Crisis at Home and Abroad (Executive Order 14008).[7] Part I of the Order highlights putting the climate crisis at the center of United States foreign policy and national security. Addressing the climate crisis will require significant short-term global reductions in GHG emissions and net-zero global emissions by mid-century or sooner. The United States will pursue green recovery efforts and initiatives to advance the clean energy transition.

Part II of the Order relays the government-wide approach to the climate crisis, which involves reducing climate pollution in every sector of the economy, especially through innovation, commercialization, and deployment of clean energy technologies and infrastructure. A National Climate Task Force is established to focus on addressing the climate crisis through key federal actions to reduce climate change impacts. A 100 percent carbon pollution-free electricity sector is targeted by no later than 2035 and a net-zero emissions economy is to be achieved by no later than 2050. Offshore wind is aimed to be doubled by 2030. Opportunities for federal funding of clean energy technology and infrastructure shall be identified. Federal permitting decisions need to consider the effects of GHG emissions and climate change.

State

California Air Resources Board. The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of CO_2e in the world and produced 440 million gross metric tons of CO_2e in 2015. In the state, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark AB 32 California Global Warming Solutions Act of 2006, was specifically enacted to address GHG emissions. Other legislation, such as Title 24 building efficiency standards and Title 20 appliance energy standards, were originally adopted

[6] National Highway Traffic Safety Administration, *USDOT Announces New Vehicle Fuel Economy Standards for Model Year 2024-2026*, available at: https://www.nhtsa.gov/press-releases/usdot-announces-new-vehicle-fuel-economy-standards-model-year-2024-2026

[7] White House Briefing Room. 2021. *Executive Order on Tackling the Climate Crisis at Home and Abroad*. January 27. Available at:https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/. Accessed: December 2024.

for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major legislation related to GHG emissions reduction.

Assembly Bill 32 (California Global Warming Solutions Act of 2006). AB 32 instructs the CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. AB 32 also directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved by 2020. It set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

CARB Scoping Plan. Adopted December 15, 2022, CARB's *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. Specifically, the 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen.

The key elements of the 2022 CARB Scoping Plan focus on transportation. Specifically, the 2022 Scoping Plan aims to rapidly move towards zero-emission transportation (i.e., electrifying cars, buses, trains, and trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector are adopted and enforced by CARB on vehicle manufacturers and are outside the jurisdiction and control of local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place.

Included in the 2022 Scoping Plan is a set of Local Actions (2022 Scoping Plan Appendix D) aimed at providing local jurisdictions with recommendations to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan is not regulatory, is not exhaustive, and does not include everything local governments can implement to support the State's climate goals. It focuses primarily on climate action plans (CAPs) and local authority over new residential development. It includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. CARB specifically states that Section 3 of Appendix D, which discusses land use plans and development projects, does not address land uses other than residential and mixed-use residential, such as industrial. However, CARB plans to explore new approaches for other land use types in the future.

CARB Advanced Clean Truck Regulation. CARB adopted the Advanced Clean Truck Regulation in June 2020 requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California is required to be zero-emission. This rule directly addresses disproportionate risks and health and pollution burdens and puts California on the path for an all zero-emission short-haul drayage fleet in ports and railyards by 2035, and zero-emission "last-mile" delivery trucks and vans by 2040. The Advanced Clean Truck Regulation accelerates the

transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8. The regulation has two components including a manufacturer sales requirement, and a reporting requirement:

- Zero-Emission Truck Sales: Manufacturers who certify Class 2b through 8 chassis or complete vehicles with combustion engines are required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales need to be 55 percent of Class 2b – 3 truck sales, 75 percent of Class 4 – 8 straight truck sales, and 40 percent of truck tractor sales.
- Company and Fleet Reporting: Large employers including retailers, manufacturers, brokers and others would be required to report information about shipments and shuttle services. Fleet owners, with 50 or more trucks, would be required to report about their existing fleet operations. This information would help identify future strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs.

Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions Limit). Signed into law in September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

SB 375 (The Sustainable Communities and Climate Protection Act of 2008). Signed into law on September 30, 2008, SB 375 provides a process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established by AB 32. SB 375 requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, aligns planning for transportation and housing, and creates specified incentives for the implementation of the strategies.

AB 1493 (Pavley Regulations and Fuel Efficiency Standards). AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the by the U.S. District Court for the District of Columbia in 2011. The regulations establish one set of emission standards for model years 2009–2016 and a second set of emissions standards for model years 2017 to 2025. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO_2e emissions and 75 percent fewer smog-forming emissions. In 2018, the EPA proposed the SAFE Vehicles Rule, which would roll back fuel economy standards and revoke California's waiver. However, in December 2021, the NHTSA repealed the SAFE Vehicle Rule Part One.

SB 1368 (Emission Performance Standards). SB 1368 is the companion bill of AB 32, which directs the California Public Utilities Commission (CPUC) to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 limits carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. The new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the state. The CPUC adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for

baseload generation owned by, or under long-term contract to publicly owned utilities, for 1,100 pounds of CO_2 per megawatt-hour.

SB 1078 and SBX1-2 (Renewable Electricity Standards). SB 1078 required California to generate 20 percent of its electricity from renewable energy by 2017. This goal was accelerated with SB 107, which changed the due date to 2010 instead of 2017. On November 17, 2008, Executive Order S-14-08 established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Executive Order S-21-09 also directed CARB to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23. SB X1-2 codified the 33 percent by 2020 goal.

SB 350 (Clean Energy and Pollution Reduction Act of 2015). Signed into law on October 7, 2015, SB 350 implements the goals of Executive Order B-30-15. The objectives of SB 350 are to increase the procurement of electricity from renewable sources from 33 percent to 50 percent (with interim targets of 40 percent by 2024, and 45 percent by 2027) and to double the energy efficiency savings in electricity and natural gas end uses of retail customers through energy efficiency and conservation. SB 350 also reorganizes the Independent System Operator to develop more regional electricity transmission markets and improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

AB 398 (Market-Based Compliance Mechanisms). Signed on July 25, 2017, AB 398 extended the duration of the Cap-and-Trade program from 2020 to 2030. AB 398 required CARB to update the Scoping Plan and for all GHG rules and regulations adopted by the State. It also designated CARB as the statewide regulatory body responsible for ensuring that California meets its statewide carbon pollution reduction targets, while retaining local air districts' responsibility and authority to curb toxic air contaminants and criteria pollutants from local sources that severely impact public health. AB 398 also decreased free carbon allowances over 40 percent by 2030 and prioritized Cap-and-Trade spending to various programs including reducing diesel emissions in impacted communities.

SB 150 (Regional Transportation Plans). Signed on October 10, 2017, SB 150 aligns local and regional GHG reduction targets with State targets (i.e., 40 percent below their 1990 levels by 2030). SB 150 creates a process to include communities in discussions on how to monitor their regions' progress on meeting these goals. The bill also requires the CARB to regularly report on that progress, as well as on the successes and the challenges regions experience associated with achieving their targets. SB 150 provides for accounting of climate change efforts and GHG reductions and identify effective reduction strategies.

SB 100 and SB 1020 (California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases). Signed into law in September 2018, SB 100 increased California's renewable electricity portfolio from 50 to 60 percent by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045. SB 1020 provides additional goals for the path to the 2045 goal of 100 percent clean electricity retail sales. It creates a target of 90 percent clean electricity retail sales by 2035 and 95 percent clean electricity retail sales by 2040.

AB 1346 (Air Pollution: Small Off-Road Engines). Signed into law in October 2021, AB 1346 requires CARB, to adopt cost-effective and technologically feasible regulations to prohibit engine exhaust and evaporative emissions from new small off-road engines, consistent with federal law, by July 1, 2022. The bill requires CARB to identify and, to the extent feasible, make available funding for commercial rebates

or similar incentive funding as part of any updates to existing applicable funding program guidelines to local air pollution control districts and air quality management districts to implement to support the transition to zero-emission small off-road equipment operations.

AB 1279 (The California Climate Crisis Act). AB 1279 establishes the policy of the State to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO_2 removal solutions and carbon capture, utilization, and storage technologies.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs using executive orders. Although not regulatory, they set the state's tone and guide the actions of state agencies.

Executive Order S-3-05. Executive Order S-3-05 was issued on June 1, 2005, which established the following GHG emissions reduction targets:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-01-07. Issued on January 18, 2007, Executive Order S-01-07 mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. The executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. CARB adopted the LCFS on April 23, 2009

Executive Order S-13-08. Issued on November 14, 2008, Executive Order S-13-08 facilitated the California Natural Resources Agency development of the 2009 California Climate Adaptation Strategy. Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order S-14-08. Issued on November 17, 2008, Executive Order S-14-08 expands the state's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S- 21- 09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the state come from renewable energy by 2020. CARB adopted the Renewable Electricity Standard on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Executive Order S-21-09. Issued on July 17, 2009, Executive Order S-21-09 directs CARB to adopt regulations to increase California's Renewable Portfolio Standard (RPS) to 33 percent by 2020. This builds

upon SB 1078 (2002), which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006), which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

Executive Order B-30-15. Issued on April 29, 2015, Executive Order B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of CO_2e ($MMTCO_2e$). The 2030 target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set by Executive Order S-3-05. The executive order also requires the state's climate adaptation plan to be updated every three years and for the state to continue its climate change research program, among other provisions. With the enactment of SB 32 in 2016, the Legislature codified the goal of reducing GHG emissions by 2030 to 40 percent below 1990 levels.

Executive Order B-55-18. Issued on September 10, 2018, Executive Order B-55-18 establishes a goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing GHG emissions. The executive order requires CARB to work with relevant state agencies to develop a framework for implementing this goal. It also requires CARB to update the Scoping Plan to identify and recommend measures to achieve carbon neutrality. The executive order also requires state agencies to develop sequestration targets in the Natural and Working Lands Climate Change Implementation Plan.

Executive Order N-79-20. Issued on September 23, 2020, Executive Order N-79-20 established a goal to end the sales of new internal combustion engine vehicles in the state as soon as possible, and no later than 2035, and continue to phaseout fossil-fueled cars and trucks. By setting a course to end sales of internal combustion passenger vehicles by 2035, the Governor's Executive Order establishes a target for the transportation sector that helps put the state on a path to carbon neutrality by 2045. It is important to note that the Executive Order focuses on new vehicle sales for automakers, and therefore does not require Californians to give up the existing cars and trucks they already own.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat, even with rapid population growth.

Title 20 Appliance Efficiency Regulations. The appliance efficiency regulations (California Code of Regulations [CCR] Title 20, Sections 1601-1608) include standards for new appliances. Twenty-three categories of appliances are included in the scope of these regulations. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy-and water-efficient appliances.

Title 24 Building Energy Efficiency Standards. California's Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR Title 24, Part 6) was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The California Energy Commission (CEC) adopted the 2022 Energy Code on August 11, 2021, which was subsequently approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Title 24 standards will

result in less energy use, thereby reducing air pollutant emissions associated with energy consumption across California. For example, the 2022 Title 24 standards will require efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, and strengthens ventilation standards.

Title 24 California Green Building Standards Code. The California Green Building Standards Code (CCR Title 24, Part 11) commonly referred to as the CALGreen Code, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect on January 1, 2023 (2022 CALGreen). The 2022 CALGreen standards continue to improve upon the existing standards for new construction of, and additions and alterations to, residential and nonresidential buildings.

California Vehicle Regulations

Advanced Clean Cars I and II

Advanced Clean Cars combines several regulations into one package including the Low-Emission Vehicle (LEV) criteria and greenhouse gas regulations and the zero-emission vehicle (ZEV) regulation. Advanced Clean Cars I was adopted in 2012 and Advanced Clean Cars II was adopted in 2022. These regulations rapidly scale down emissions of light-duty passenger cars, pickup trucks and SUVs and require an increased number of zero-emission vehicles to meet air quality and climate change emissions goals. By 2035 all new passenger cars, trucks and SUVs sold in California will be zero emissions. The Advanced Clean Cars II regulations take the State's already growing zero-emission vehicle market and robust motor vehicle emission control rules and augments them to meet more aggressive tailpipe emissions standards and ramp up to 100% zero-emission vehicles.

CARB Advanced Clean Fleets Regulation

CARB approved Advanced Clean Fleets Regulation (ACF) on April 28, 2023, requires fleet owners to begin transitioning toward ZEVs starting in 2024. Due to the impact that truck traffic has on residents living near heavily trafficked corridors, drayage trucks will need to be zero emissions by 2035. All other fleet owners have the option to transition a percentage of their vehicles to meet expected zero-emission milestones, which gives owners the flexibility to continue operating combustion-powered vehicles as needed during the move toward cleaner technology.

Regional and Local

San Joaquin Valley Air Pollution Control District

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is made up of eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the San Joaquin Valley Air Basin portion of Kern. The City of Lodi and the project site are located within the jurisdiction of the SJVAPCD. The SJVAPCD adopted a Climate Change Action Plan in August 2008. However, the State has enacted several significant GHG reduction measures since the adoption of the Climate Change Action Plan.

Therefore, this analysis does not address the SJVAPCD Climate Change Action Plan; refer to the *Thresholds* discussion below.

City of Lodi Municipal Code

Chapter 15.18 of the Lodi Municipal Code includes the following regulation for Green Building Code:

- The provisions set forth in the "2022 California Green Building Standard Code" is hereby adopted as the Green Building Code of the City of Lodi, and a copy of the same is maintained by the city building official and available for review in the community development department. The Green Building Code of the city of Lodi shall apply to the planning, design, operations, construction, use, and occupancy of every newly-constructed building or structure requiring a building permit in the City of Lodi.

City of Lodi General Plan

The General Plan includes GHG reduction strategies to help the City sustain its natural resources, grow efficiently, and meet California legal requirements for GHG reductions. Multiple policies and actions in the General Plan have GHG implications including those targeting land use, community development, transportation, conservation, and green building. The General Plan includes the following relevant GHG reduction guiding policies, which are applicable to the project.

CD-G8: Promote sustainable development practices and conservation of resources to reduce environmental impact and ensure long-term sustainability.

CD-G9: Encourage green building and construction in new development and renovations.

T-G8: Encourage reduction in vehicle miles traveled as part of a strategy to reduce greenhouse gas emissions.

C-G9: Conserve energy and reduce per capita energy consumption.

CD-P40: Prepare, or incorporate by reference, and implement green building and construction guidelines and/or standards, appropriate to the Lodi context, by 2012. The guidelines and/or standards shall ensure a high level of energy efficiency and reduction of environmental impacts associated with new construction, major renovation, and operations of buildings. Ensure that these guidelines/standards:

- Require documentation demonstrating that building designs meet minimum performance targets, but allow flexibility in the methods used.
- Exceed California's 2005 Title 24 regulation standards for building energy efficiency by 15%, with particular emphasis on industrial and commercial buildings.
- Reduce resource or environmental impacts, using cost-effective and well-proven design and construction strategies.
- Reduce waste and energy consumption during demolition and construction.
- Identify street standards, such as street tree requirements, appropriate landscaping practices, and acceptable materials.

- Incorporate sustainable maintenance standards and procedures.
- Promote incorporation of energy conservation and weatherization features in existing structures. Develop programs that specifically target commercial and industrial structures for energy conservation and weatherization measures in order to reduce annual kWh per job.

These guidelines could be developed directly from the LEEDTM system developed by the U.S. Green Building Council, the California-based Build It Green GreenPoint rating system, or an equivalent green building program.

C-P37: Promote incorporation of energy conservation and weatherization features into existing structures. Update the Zoning Ordinance and make local amendments to the California Building Code, as needed, to allow for the implementation of green building, green construction, and energy efficiency measures.

C-P38: Encourage the development of energy efficient buildings and communities. All new development, including major rehabilitation, renovation, and redevelopment projects, shall incorporate energy conservation and green building practices to the maximum extent feasible and as appropriate to the project proposed. Such practices include, but are not limited to: building orientation and shading, landscaping, and the use of active and passive solar heating and water systems. The City may implement this policy by adopting and enforcing a Green Building Ordinance.

ENVIRONMENTAL SETTING

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

The primary GHGs contributing to the greenhouse effect are CO_2, CH_4, and N_2O. Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Examples of fluorinated gases include chlorofluorocarbons (CFCs), HFCs, PFCs, SF_6, and nitrogen trifluoride (NF_3); however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of GHGs exceeding natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the Earth's climate, known as global climate change or global warming.

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants (TACs), which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of a GHG molecule is dependent on multiple variables and cannot be pinpointed, more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms of carbon sequestration. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains stored in the atmosphere.[8] *Table 5.8-1: Description of Greenhouse Gases* describes the primary GHGs attributed to global climate change, including their physical properties.

[8] Intergovernmental Panel on Climate Change, Carbon and Other Biogeochemical Cycles. In: Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2013. http://www.climatechange2013.org/ images/report/WG1AR5_ALL_FINAL.pdf.

Table 5.8-1: Description of Greenhouse Gases

Greenhouse Gas	Description
Carbon Dioxide (CO_2)	CO_2 is a colorless, odorless gas that is emitted naturally and through human activities. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO_2 is variable because it is readily exchanged in the atmosphere. CO_2 is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.
Nitrous Oxide (N_2O)	N_2O is largely attributable to agricultural practices and soil management. Primary human-related sources of N_2O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N_2O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years. The Global Warming Potential of N_2O is 298.
Methane (CH_4)	CH_4, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, about 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH_4 include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of CH_4 is about 12 years and the Global Warming Potential is 25.
Hydrofluorocarbons (HFCs)	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of CFCs and HCFCs gains momentum. The 100-year Global Warming Potential of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Global Warming Potentials range from 6,500 to 9,200.
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. Global Warming Potentials for CFCs range from 3,800 to 14,400.
Sulfur Hexafluoride (SF_6)	SF_6 is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. The Global Warming Potential of SF_6 is 23,900.
Hydrochlorofluoro-carbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year Global Warming Potentials of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.
Nitrogen Trifluoride (NF_3)	NF_3 was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays. It has a high global warming potential of 17,200.

Source: Compiled from U.S. EPA, *Overview of Greenhouse Gases*, (https://www.epa.gov/ghgemissions/overview-greenhouse-gases), 2018; U.S. EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, 2018; Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, 2007; National Research Council, Advancing the Science of Climate Change, 2010; U.S. EPA, *Methane and Nitrous Oxide Emission from Natural Sources*, April 2010.

GHG THRESHOLDS

Based upon the criteria derived from State CEQA Guidelines Appendix G, a project normally would have a significant effect on the environment if it would:

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

The SJVAPCD has not adopted a GHG significance threshold. The nearest most representative air district with adopted GHG significance thresholds is the Bay Area Air Quality Management District (BAAQMD). Therefore, the BAAQMD GHG significance thresholds are used in this analysis and are discussed below. BAAQMD's approach to developing significance criteria for GHG emissions for local development projects that are not stationary sources is to identify features that, if included, would show that the project would not interfere with the state's goal to have net zero emissions by 2045. Under the BAAQMD thresholds a project that meets either A or B is a project that would make a less than cumulatively considerable contribution to significant cumulative climate change impacts:

A. Projects must include, at a minimum, the following project design elements:
    1. Buildings
        a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
        b. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
    2. Transportation
        a. The project will achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target that reflects the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
            i. Residential projects: 15 percent below the existing VMT per capita
            ii. Office projects: 15 percent below the existing VMT per employee
            iii. Retail projects: no net increase in existing VMT
        b. Achieve compliance with electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.
B. Be consistent with a local GHG Reduction Strategy that meets the criteria under the CEQA Guidelines section 15183.5(b) C

A qualified GHG Reduction Strategy adopted by a local jurisdiction should include the following elements as described in the State CEQA Guidelines Section 15183.5(b)(1):

i. Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;

ii. Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;
iii. Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area;
iv. Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
v. Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels; and
vi. Be adopted in a public process following environmental review.

Neither SJVAPCD nor BAAQMD has an adopted threshold of significance for construction-related GHG emissions. However, the BAAQMD recommends quantification and disclosure of construction GHG emissions. The BAAQMD also recommends that the Lead Agency should make a determination on the significance of these construction generated GHG emission impacts in relation to meeting AB 32 GHG reduction goals, as required by the Public Resources Code, Section 21082.2. The Lead Agency is encouraged to incorporate best management practices to reduce GHG emissions during construction, as feasible and applicable.

ENVIRONMENTAL IMPACTS

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

Less than Significant Impact with Mitigation Incorporated.

Short-Term Construction Greenhouse Gas Emissions

Construction of the project would result in direct emissions of CO_2, N_2O, and CH_4 from the operation of construction equipment and the transport of materials and construction workers to and from the project site. SJVAPCD has not adopted a threshold of significance for construction GHG emissions, which are one-time, short-term *emissions* and therefore would not significantly contribute to long-term cumulative GHG emissions impacts of the proposed project. Total GHG emissions generated during all phases of construction were combined and are presented in *Table 5.8-2: Construction Greenhouse Gas Emissions*. The modeling assumptions and CalEEMod outputs are provided in **Appendix A**.

Table 5.8-2: Construction Greenhouse Gas Emissions

Year	$MTCO_2e$[1]
2025	282

$MTCO_2e$ = metric tons of carbon dioxide equivalent.
1. Due to rounding, Total $MTCO_2e$ may be marginally different from CalEEMod output.
Source: CalEEMod version 2022.1. Refer to **Appendix A** for model outputs.

As shown in *Table 5.8-2*, project construction-related activities would generate approximately 282 $MTCO_2e$ of GHG emissions over the course of construction. Once construction is complete, the generation of construction-related GHG emissions would cease.

Long-Term Operational Greenhouse Gas Emissions

Operational or long-term emissions would occur over the project's life. GHG emissions would result from direct emissions such as project generated vehicular traffic, on-site combustion of natural gas, and operation of any landscaping equipment. Operational GHG emissions would also result from indirect sources, such as off-site generation of electrical power over the life of the project, the energy required to convey water to, and wastewater from the project site, the emissions associated with solid waste generated from the project site, and any fugitive refrigerants from air conditioning or refrigerators. Total unmitigated GHG emissions associated with the project are summarized in *Table 5.8-3: Operational Greenhouse Gas Emissions*. As shown in *Table 5.8-3*, the project's unmitigated GHG emissions would be approximately 3,927 $MTCO_2e$.

Table 5.8-3: Operational Greenhouse Gas Emissions

Emission Source	$MTCO_2e$[1]
Mobile	3,108
Area Source	<1
Backup Generator	8
Drive-Thru Idling	5
Energy (Electricity)	144
Energy (Natural Gas)	106
Water	9
Waste	67
Refrigerants	480
Total	**3,927**

$MTCO_2e$ = metric tons of carbon dioxide equivalent.
1. Due to rounding, total $MTCO_2e$ may be marginally different from CalEEMod outputs.
Source: CalEEMod version 2022.1. Refer to **Appendix A** for model outputs.

It should be noted that the project would comply with the 2022 Title 24 Part 6 Building Energy Efficiency Standards. The standards require nonresidential ventilation requirements, nonresidential lighting requirements, and other green building measures. The project would also comply with the appliance energy efficiency standards in Title 20 of the California Code of Regulations. The Title 20 standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances. The project would be constructed according to the standards for high-efficiency water fixtures for indoor plumbing and water efficient irrigation systems required in 2022 Title 24, Part 11 (CALGreen). The GHG emissions shown in *Table 5.8-3* conservatively do not include reductions associated with the 2022 Title 24 Part 6 Building Energy Efficiency Standards.

At the State and global level, improvements in technology, policy, and social behavior can also influence and reduce operational emissions generated by a project. The state is currently on a pathway to achieving the Renewable Portfolio Standards goal of 60 percent renewables by 2030 per SB 100.

The majority of project emissions would occur from mobile and energy sources. Energy and mobile sources are targeted by statewide measures such as low carbon fuels, cleaner vehicles, strategies to promote sustainable communities and improved transportation choices that result in reducing VMT, continued implementation of the Renewable Portfolio Standard (the target is now set at 60 percent renewables by 2030), and extension of the Cap-and-Trade program (requires reductions from industrial sources, energy generation, and fossil fuels). The Cap-and-Trade program covers approximately 85 percent of California's GHG emissions as of January 2015. The statewide cap for GHG emissions from the capped sectors (i.e., electricity generation, industrial sources, petroleum refining, and cement production) commenced in 2013 and will decline approximately three percent each year, achieving GHG emission reductions throughout the program's duration. The passage of AB 398 in July 2017 extended the duration of the Cap-and-Trade program from 2020 to 2030.

According to the BAAQMD, the project would result in less than significant GHG impacts if the following project design features were met:

1. Buildings
    a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
    b. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
2. Transportation
    a. The project will achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target that reflects the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
        i. Residential projects: 15 percent below the existing VMT per capita
        i. Office projects: 15 percent below the existing VMT per employee
        ii. Retail projects: no net increase in existing VMT
    b. Achieve compliance with electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

To further reduce GHG emissions the project would implement Mitigation Measures **MM GHG-1** and **MM GHG-2**. Mitigation Measure MM GHG-1 would require the project to use all-electric appliances and end uses instead of natural gas. Mitigation Measure MM GHG-2 would require the project to meet CALGreen Tier 2 electric vehicle requirements. Additionally, because the majority of motorists would access the project site on their way to another destination, the project would

not increase VMT.[9] Further, as discussed in Section 5.6, Energy, the project would not result in any wasteful, inefficient, or unnecessary use of energy. Therefore, with implementation of Mitigation Measures MM GHG-1 and MM GHG-2, the project would meet the BAAQMD GHG significance criteria and impacts would be less than significant.

MM GHG-1 **Require All-Electric Development**. Prior to the issuance of building permits, the Building Department shall confirm that building plans require the project to use all-electric appliances, and end uses instead of natural gas. The project shall not include natural gas utility lines or connections.

MM GHG-2 **CALGreen Tier 2**. Prior to the issuance of a building permit, the Project Applicant or successor in interest shall provide documentation to the Building Department demonstrating that the project is designed to meet or exceed 2022 CALGreen Tier

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

Less Than Significant Impact with Mitigation Incorporated.

The City of Lodi adopted the Climate Action Plan (CAP) on November 14, 2014. The CAP states that if substantial evidence suggests that the GHG emissions from a project would be cumulatively considerable, even if the project complies to specific measures in CAP, an Environmental Impact Report (EIR) needs to be prepared. The CAP's goals align with AB 32 and the States efforts to reduce GHG emissions to 1990 levels by 2020. However, since adoption of the CAP in 2014, the State has enacted several significant GHG reduction measures, including AB 1279. AB 1279 sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045. As discussed above, the BAAQMD GHG significance criteria aligns with the State's goal to meet net zero emissions by 2045, and the project was determined to be consistent with the BAAQMD GHG significance criteria with implementation of Mitigation Measures MM GHG-1 and MM GHG-2. Therefore, implementation of the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and impacts would be less than significant.

Cumulative Impacts

It is generally the case that an individual project of the project's size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of project-related GHG emissions would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the project as well as other cumulative related projects, would be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As discussed above in

[9] GHD, *Lodi Maverik Gas Station Traffic Study Technical Memorandum*, September 30, 2024.

5.8 b) above, the project would not conflict with any GHG reduction plan. Therefore, the project's cumulative contribution of GHG emissions would be less than significant and the project's cumulative GHG impacts would also be less than cumulatively considerable.

5.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
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**	

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact.

Construction

Any potentially hazardous materials used during project construction would be handled on-site. This generally includes paints and solvents and other petroleum-based products, usually used for on-site construction equipment and for building exterior finishes. The use or handling of these potentially hazardous materials would be short-term only during the construction phase of project. Although these materials could be stored on-site, they would be required to comply with the guidelines established by the City of Lodi. The transport, removal, and disposal of hazardous materials on the project site would be conducted by a permitted and licensed service provider consistent with federal, state, and local requirements including the EPA, the California Department of Toxic Substances Control (DTSC), the California Occupational Safety and Health Administration (Cal/OSHA), Caltrans, the Resource Conservation and Recovery Act, and the Lodi Fire Department (LFD) or through the Conditionally Exempt Small Quantity Generator (CESQG) Program. With the compliance with local, state, and federal regulations short-term construction impacts associated with the handling, transport, use, and disposal of hazardous materials would be less than significant.

Operations

During project operations, widely used hazardous materials common at commercial/retail and office uses include cleaners, pesticides, and food waste would be present. The remnants of these and other products are disposed of as household hazardous waste that are prohibited or discouraged from being disposed of at local landfills. Regular operation and maintenance of the project structures would not result in significant impacts involving use, storage, transport or disposal of hazardous wastes and substances. Use of common commercial/retail and office hazardous materials and their disposal does not present a substantial health risk to the community Additionally, the project site is not included on the list of hazardous waste sites (Cortese List) compiled by the Department of Toxic Substances Control (DTSC) pursuant to Government Code § 65962.5 and therefore would not release known hazardous materials due to ground-disturbing activities.[10] Project impacts associated with the routine transport and use of hazardous materials or wastes would be less than significant.

Direct hazardous waste would be generated from landscaping involving the use of pesticides/herbicides and fertilizers. Landscaping maintenance best management practices (BMPs) would be conducted according to the California Stormwater Quality Associations; Stormwater BMPs which would reduce pesticides and fertilizers from running off off-site. The proposed

[10] Department of Toxic Substances Control (DTSC) EnviroStor. 2024. *Hazardous Waste and Substances Site List.* https://www.envirostor.dtsc.ca.gov/public/map/?global_id=39990003. Accessed June 2024.

Maverik Gas Station would be required to operate in compliance with all with applicable federal, state, and local requirements which lessen the potential for these impacts.

Hazardous waste generated from the convenience store could include used oil. The waste associated with this will conform to applicable federal, state, and local agency regulations. Proposed development is subject to the requirements of Chapter 13.14 of the Lodi Municipal Code. – Stormwater Management and Discharge Control. The purpose of these requirements is to "protect and promote the health, safety and general welfare of the citizens of the city by controlling non-stormwater discharges to the stormwater conveyance system, by eliminating discharges to the stormwater conveyance system from spills, dumping or disposal of materials other than stormwater, and by reducing pollutants in urban stormwater discharges to the maximum extent practicable." 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.

Operations of the gas station would include the use, transport and handling of hazardous materials. Specifically, operation activities would include the regular transportation of gasoline to refill USTs, refilling USTs and pumping gasoline to fuel dispensers, and regular use of the fuel dispensers by motorists. As a result, the proposed Maverik gas station could result in potentially adverse impacts to people and the environment as a result of hazardous materials being accidentally released into the environment (e.g., operators or motorists could spill gasoline while refueling, USTs or pipes dispensing fuel from USTs could leak, automobiles could crash into fuel dispensers, or motorists could refuel while having engine running causing a fire hazard). However, the proposed Maverik Gas Station would be required to operate in compliance with all with applicable federal, state, and local requirements which lessen the potential for these impacts. Some of these regulations include:

- California State Water Resources Control Board (SWRCB) Health and Safety Code, Section 25280, underground storage tanks (USTs) installed after 1988 are required to have a leak detection system consisting of at least one of the following detection methods: secondary containment with interstitial monitoring, automatic tank gauging systems (including continuous automatic tank gauging systems), vapor monitoring (including tracer compound analysis), groundwater monitoring, statistical inventory reconciliation, or other method meeting established performance standards.
- Efficacy requirements established by Environmental Protection Agency (EPA) require that leak detection methods be able to detect certain leak rates and that they also give the correct answer consistently. In general, methods must detect the specified leak rate with a probability of detection of at least 95 percent and a probability of false alarm of no more than 5 percent. EPA found that, with effective leak detection, operators can respond quickly to signs of leaks and minimize the extent of environmental damage and the threat to human health and safety.

- USTs and associated fuel delivery infrastructure (i.e., fuel dispensers) would be required to comply with applicable federal, state, and local regulations, including those provisions established by Section 2540.7, Gasoline Dispensing and Service Stations, of the California OSHA Regulations; Chapter 38, Liquefied Petroleum Gases, of the California Fire Code; the Resource Conservation and Recovery Act; and the County Fire Department Hazardous Materials Division.
- The proposed project would also be required to incorporate high-efficiency Phase I and Phase II enhanced vapor recovery (EVR) systems to capture and control gasoline fumes. EVR refers to a new generation of equipment to control emissions at gasoline dispensing facilities in California. EVR systems collect gasoline vapors that would otherwise escape into the atmosphere during bulk fuel delivery (Phase I) or fuel storage and vehicle refueling (Phase II). Since 2009, the installation of Phase I and Phase II EVR systems has been required for gasoline dispensing facilities.
- The fuel dispensers, USTs, and associated fuel delivery infrastructure would be subject to routine inspection by federal, state, and local regulatory agencies with jurisdiction over convenience service station facilities.
- The handling, transport, use, and disposal of hazardous materials must comply with applicable federal, state, and local agencies and regulations.
- In addition to compliance with local, state, and federal requirements, Maverick would take additional measures to prevent environmental and safety impacts. Some of these additional measures, which are proposed as project design features, include:
    - Product, vapor, and vent piping would be noncorrosive and would provide three levels of protection. First, product piping would be monitored with pressure line leak detection. Second, piping would be double wall to provide secondary containment. Third, fiberglass piping would be additionally monitored under vacuum in accordance with AB 2481 regulations such that, if a breach is detected in the vacuum, the product delivery system would shut down, and the system would sound an audible alarm.
    - Piping connections to the tanks and dispensers would be flexible. Flexible connectors would be used to prevent rupture from any form of ground movement.
    - Piping would slope to the sumps at the USTs. If a piping leak occurs, the gasoline would flow through the secondary pipe to the sump, where a sensor would be triggered to immediately shut down the system and activate an audible/visual alarm.
    - Tanks and dispensers would be equipped with latest Phase I and Phase II EVR vapor recovery air pollution control equipment technology in accordance with the California Air Resources Board regulations and associated Executive Orders. The Phase I EVR equipment would control the vapors in the return path from the tanks back to the tanker truck during offloading filling operations. Phase I EVR systems are 98 percent effective in controlling fugitive emissions from escaping into the environment. Phase II EVR equipment, which also includes “in-station diagnostics,” would control and monitor the vapors in the return path from the vehicles back to the tanks and are 95 percent effective in controlling fugitive emissions from escaping into the environment.

- The UST monitoring system incorporates automatic shutoffs. If gasoline is detected in the sump at the fuel dispenser, the dispenser would shut down automatically, and an alarm would sound. If a problem is detected with a tank, the tank would be automatically shut down, and an alarm would sound. If the product piping system detects a failure of the 0.1 gallons per hour test, the line would be automatically shut down, and the alarm would sound. Pursuant to federal requirements, monitoring equipment must be able to detect a minimum leak of 3 gallons per hour (equivalent to the accuracy of a mechanical leak detector). Each fuel dispenser would include several safety devices. Specifically, each dispenser sump would be equipped with an automatic shutoff valve to protect against vehicle impact. In addition, each fuel hose would include a breakaway device that would stop the flow of fuel at both ends of the hose in the event of an accidental drive-off. Also, each dispenser would be equipped with internal fire extinguishers. Lastly, dispensers would include leak detection sensors connected to the alarm console inside the controller closure.

Therefore, based on compliance with federal, state, and local regulations, and the incorporation of the proposed project design features, impacts associated with the handling, transport, use, and disposal of hazardous materials and the release of hazardous materials into the environment would be less than significant

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?

Less Than Significant Impact. As previously mentioned, the project site is previously disturbed undeveloped land. The project site proposed grading is expected to be a balanced cut and fill requiring no imported soil to backfill excavated areas. This eliminates the potential risk of imported soils being contaminated and requiring appropriate sampling. Furthermore, as mentioned above, the project design and safety measures would limit accident conditions that would result in the release of hazardous materials.

Given the previous uses of the project site it is unlikely hazardous material would be discovered on-site. However, there is the potential for inadvertent discovery of hazardous waste from historic or future activities on or near the project site. At such time the proper agencies (i.e., fire department, DTSC, and/or Cal/OSHA), would be notified to determine what future actions and/or remediation would be required to identify the extent and potential impact to human health.

Overall, with compliance to federal, state, and local regulations, and the incorporation of the proposed project design features, impacts would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. There are no schools within 0.25 miles of the project site and as noted above the project would be in compliance with federal, state, and local regulations. As such, all preventive measures would be in place to limit the hazardous emissions and waste in such a

way that would not impact the neighboring school. As such impacts are expected to be less than significant.

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?

Less Than Significant Impact. There are no superfund sites or hazardous waste and substances sites (Cortese List) within the project site boundaries (Envirostor, 2024). Additionally, there are no known hazardous materials sites within the projects boundaries as identified on the State of California Geotracker Map (State Water Resources Control Boar, 2024). Therefore, a less than significant impact associated with hazardous materials sites would occur.

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?

Less Than Significant Impact. There are no public airports or of public use airports within 2 miles of the project site. The closest public/public-use airports are; Lodi Precissi Airpark - L53 approximately 4.1 miles southwest, Kingdon Airpark approximately 6.0 miles southwest, Lodi Airport approximately 5.8 miles north, and Stockton Metropolitan Airport approximately 15.8 miles south of the project site. Additionally, the project site does not fall within any airport land use plan boundaries and therefore impacts associated with a safety hazard or excessive noise would be less than significant.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The project is not anticipated to physically impede the existing emergency response plans, emergency vehicle access, or personnel access to the site. The project would not change local roadway circulation patterns or access. Emergency vehicle access must be maintained at all times throughout construction activities, in accordance with the County's routine/standard construction specifications. Further, construction activities would not be permitted to impede emergency access to any local roadways or surrounding properties. All driveways and internal site access roads would be constructed to accommodate all emergency vehicles and personnel. The San Joaquin County Board of Supervisors adopted an Emergency Operations Plan (EOP) in April 2019 and San Joaquin County published an update in February 2022. The primary purpose of the EOP is to outline the County's all-hazard approach to emergency operations to protect the safety, health, and welfare of its citizens throughout all emergency management mission areas. The project with the proposed zone change would be consistent with the site's current land use and zoning designations, and the project would not physically interfere with the EOP. As such, the project would have a less than significant impact associated with the impairment or interference with an adopted emergency response plan.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant Impact. The project site is not located within an area identified as having wildland fire potential. Therefore, the project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. Additionally, according to CALFIRE, the project site is not located in a Very High Fire Hazard Severity Zone (VHFHSZ) (CALFIRE, 2007). As such, the project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. A Less Than Significant impact would occur.

Cumulative Impacts

The incremental effects of the proposed project related to hazards and hazardous materials, if any, are anticipated to be minimal, and any effects would be site-specific. The project is also not within an area classified as a VHFHSZ. Therefore, the proposed project would not result in incremental effects to hazards or hazardous materials that could be compounded or increased when considered together with similar effects from other past, present, and reasonably foreseeable probable future projects. The proposed project would not result in cumulatively considerable impacts to or from hazards or hazardous materials.

5.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY. Would the project:				
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?		**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**	

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant with Mitigation Incorporated. The project site falls within the San Joaquin Valley Groundwater Basin and Eastern San Joaquin sub basin. There are no surface waters or

wetlands located on the project site per the National Wetlands Inventory (USFWS, 2024). During the early stages of project construction activities, topsoil would be exposed due to grading, trenching for utilities, and other standard ground-disturbing activities. After grading and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality downstream. The SWRCB regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. The City's National Pollutant Discharge Elimination System (NPDES) permit requires applicants to show proof of coverage under the State's General Construction Permit prior to receipt of any construction permits. The State's General Construction Permit requires that subject projects must file a Notice of Intent with the SWRCB and develop a site-specific Storm Water Pollution Prevention Plan (SWPPP). A SWPPP describes Best Management Practices (BMPs) to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts, and non-point source pollution impacts of the development project. BMPs include, but are not limited to, tracking controls, perimeter sediment controls, drain inlet protection, wind erosion/dust controls, and waste management control. Because the proposed project would disturb greater than one acre of land, the project would be subject to the requirements of the State's General Construction Permit.

Mitigation Measure MM HYD-1 would require the preparation of a SWPPP to ensure that the proposed project prepares and implements a SWPPP throughout the construction phase of the project. By implementing and maintaining proper BMPs, the potential for short-term sediment introduction should be minimized. The SWPPP (Mitigation Measure MM HYD-1) would reduce the potential for the proposed project to violate water quality standards during construction.

Post construction surface water would flow to bioretention basins. To ensure that such a system is implemented, mitigation is proposed requiring the project applicant, as part of the stormwater quality control plan required under Mitigation Measure MM HYD- 2, to include a drainage plan that demonstrates attainment of pre-project runoff volumes and peak flows prior to release in the City's storm drain system.

With the above compliance with and implementation of Mitigation Measures MM HYD-1 and MM HYD-2 the project would have a less than significant impact related to water quality and water discharge requirements.

MM HYD-1: Prior to the issuance of grading or building permits for each proposed activity within the project area, the project applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the City of Lodi for approval that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for BMP implementation, monitoring, and maintenance; site restoration; contingency measures; responsible parties; and agency contacts. The SWPPP shall include but not be limited to the following elements:

- Temporary erosion control measures shall be employed for disturbed areas.
- Specific measures shall be identified to protect the onsite open drainages during construction of the proposed project.
- No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months.
- Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures.
- The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains.
- BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure.
- In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

MM HYD-2: Prior to the issuance of building or grading permits, the project applicant shall submit a stormwater quality control plan to the City of Lodi for review and approval. The plan shall include a detailed drainage plan and identify expected site-specific pollutants and required measures to treat those pollutants before they reach the municipal storm drain. The approved measures shall be incorporated into the proposed project. The plan will describe monitoring and performance measures and standards required in order to ensure water quality is adequately protected during operation of all proposed sites within the project area. Examples of stormwater pollution prevention measures and practices to be incorporated into the plan include but are not limited to:

- Strategically placed bioswales and landscaped areas that promote percolation of runoff
- Pervious pavement
- Roof drains that discharge to landscaped areas

- Trash enclosures with screen walls and roofs
- Stenciling on storm drains
- Curb cuts in parking areas to allow runoff to enter landscaped areas
- Rock-lined areas along landscaped areas in parking lots
- Catch basins
- Oil/water separators
- Regular sweeping of parking areas and cleaning of storm drainage facilities
- Employee training to inform maintenance personnel of stormwater pollution prevention measures

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

And,

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. As previously mentioned, the project is within the San Joaquin Valley Groundwater Basin and Eastern San Joaquin sub basin. The Department of Water Resources has classified the Eastern San Joaquin County Groundwater Basin (ESJCGB) as a basin in a critical condition of overdraft. Groundwater overdraft in the ESJCGB and the City's groundwater withdrawal rate is of vital concern to the City as this poses a long-term risk to the reliability of the groundwater supply. According to the City's 2020 Urban Water Management Plan (UWMP), to reduce dependence on groundwater and ensure sustainable yields, the City has implemented Demand Management Measures. One of which requires that the City's non-residential customers are metered and charged the same as in-city multi-family residential customers resulting a single-block commodity rate that encourages water conservation with one price for each unit volumetric water use. Furthermore, the UWMP outlines levels of shortage response actions consisting of restrictions, procedures, and penalties that would encourage water conservation and that the project would comply to, consisting of the following levels: Potential Shortage, Minor Shortage, Moderate Shortage, Severe Shortage, and Critical Shortage. The resulting reduction in groundwater withdrawal has stabilized groundwater levels in the Lodi area. Furthermore, the proposed project is located within the City of Lodi Planning Area according to the 2022 Municipal Service Review and Sphere of Influence Plan. The proposed project would connect to the City Water Service Area, which is supplied by groundwater from the Eastern San Joaquin Basin and

surface water purchased from the Woodbridge Irrigation District (WID). The proposed project would be located within the City's Planning Area and would be consistent with the City's UWMP.

The proposed project would generate an increase in water demand. However, such demand would be met through a combination of the aforementioned water sources. Development of the project site would not result in an increase in groundwater pumping because the City cannot exceed the sustainable groundwater pumping yield.

In addition, the project site constitutes a relatively small area compared to the size of the groundwater basin and, thus, does not constitute a substantial source of groundwater recharge. The project would allow for some continued infiltration through the proposed bio-retention basin and unpaved landscaping throughout the site. Therefore, the project would not substantially interfere with groundwater recharge.

The proposed project is consistent with the City's General Plan land use designations and would be consistent with the zoning land uses with the proposed zone change; therefore, groundwater use associated with development of the project has been anticipated by the City and accounted for in regional planning efforts, including the projections included in the City's UWMP. Therefore, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. The proposed project would have a less than significant impact in this regard.

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?

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

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?

iv) Impede or redirect flood flows?

Less Than Significant with Mitigation Incorporated. Project construction work could have an impact on surface water quality due to exposure of soils to potential erosion. Construction activities that would disturb more than an acre of land area would need to obtain a Construction General Permit, which would require preparation of a SWPPP that includes construction BMPs to control soil erosion, runoff, and waste discharges, including methods to clean up contaminants if they are released. Implementation of the SWPPP would reduce potential drainage pattern impacts from construction activities to a level that would be less than significant. In addition, the proposed

project would not violate any federal, state, or local water quality standards or waste discharge requirements. With the above compliance with and implementation of Mitigation Measures MM HYD-1 and MM HYD-2 the project would have a less than significant impact related to soil erosion, increased surface water runoff, and polluted surface water runoff.

Specific to the proposed gas station, the Maverik site includes 2 bioretention basins, one in the western corner and the other on the northern corner. Stormwater at the site would be collected and run through a catch basin with an oil & gas separator, to a bioretention basin, and then to a proposed storm drain that would connect to an existing stormwater drain main in East Kettleman Lane.

The project site falls within FEMA's National Flood Hazard FIRM Panel 06077C0307F, Zone X Area with a 0.2% annual chance flood hazard. (FEMA, 2024). The project site is not located within a 100-year flood hazard area and none of the structure or buildings surrounding the site are within a 100-year flood hazard. The project would comply with the city stormwater management requirements and BMPs with the implementation of Mitigation Measure MM HYD-1. Overall, with the project location in an area with low flood risk, the project would not impede or redirect flood flow which would result in a less than significant impact.

In conclusion, the proposed project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in erosion, siltation, or flooding on- or off-site, 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. Consequently, implementation of the proposed project would result in a less-than-significant impact.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less Than Significant Impact. The project site is located approximately 74 miles inland from the Pacific Ocean. As such, the potential for the project site to be inundated by a tsunami is negligible. No steep slopes are located in the project vicinity; therefore, the risk of mudflow is also negligible. Therefore, impacts would be less than significant.

Cumulative Impacts

The potential impacts related to hydrology and storm water runoff are typically site specific and site specific BMPs are implemented at the project level. The analysis above determined that the implementation of the proposed project would not result in significant impacts. In regard to proposed project impacts that would be considered less than significant, such impacts are not expected to result in compounded or increased impacts when considered together with similar effects from other past, present, and reasonably foreseeable probable future projects, as other projects would be subject to similar laws and requirements regarding hydrology practices.

Projects would be required to adhere to applicable General Plan goals, policies, and action statements; the City of Lodi's Municipal Zoning Code; the City's Standard Conditions of Approval; and the City's

stormwater management guidelines regarding stormwater runoff and infrastructure. In addition, other projects would be required to implement stormwater pollution best management practices during construction and design measures to reduce water quality impacts and comply with the NPDES Municipal Regional Permit. Future developments in the watershed would also be required to comply with the SWRCB and RWQCB. Depending on the size of future projects, they would be required to obtain and comply with all required water quality permits and the Water Quality Control Plan, as needed and prepare and implement SWPPPS, implement construction BMPs, including BMPs to minimize runoff, erosion, and storm water pollution, comply with other applicable requirements. As part of these requirements, projects would be required to implement and maintain source controls, and treatment measures to minimize polluted discharge and prevent increases in runoff flows that could substantially decrease water quality. Conformance to these measures would minimize runoff from those sites and reduce contamination of runoff with pollutants. Therefore, related projects are not expected to cause substantial increases in storm water pollution. With compliance with State and local mandates, cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

5.11 LAND USE AND PLANNING

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
LAND USE AND PLANNING. Would the project:				
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**	

a) Physically divide an established community?

Less Than Significant Impact. An example of a project that has the potential to divide an established community includes the construction of a new freeway or highway through an established neighborhood. The project proposes a commercial development. The project would be located near already established residential community to the west where it is bound by SR 99, commercial and industrial development to the north, and the general area is developing with additional general commercial or low-density residential uses. Given the project's nature, scope, and location, the project would not physically divide an established community. A less than significant Impact would occur in this regard.

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?

Less Than Significant Impact. The project site is designated as Commercial in the Lodi General Plan planning area and zoned General Agriculture (AG-40) in the San Joaquin County Development Title (San Joaquin County, 2016). The parcel is proposed to be zoned General Commercial (GC) within the City of Lodi with annexation. With annexation, the project would be consistent with the City's zoning and General Plan land use designation upon approval of individual project specific use permits dependent on commercial use. Furthermore, the adjacent parcels are zoned as commercial, business park, and industrial in the Lodi General Plan. Therefore, the project would not conflict with the City's land use plan, policy, or regulation and therefore, would be less than significant.

Cumulative Impacts

Implementation of the project would not create a significant cumulative impact to the surrounding region since its surrounding area is planned for general commercial use. As a result, no cumulative impacts related to land use and planning would occur.

5.12 MINERAL RESOURCES

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
MINERAL RESOURCES. Would the project:				
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**	

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?

Less Than Significant Impact. There are no wells located on the project site. There are no wells within a mile of the project site. The closest wells is located approximately 2.1 miles southeast of the project site and is a dry hole well that is plugged and not used. The closest Oil and Gas Field is the Lodi Southeast Gas located approximately 2 miles east of the project site. Overall, there are no known available mineral resources on the project site and therefore impacts from the proposed project would be less than significant.

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?

Less Than Significant Impact. The project site is considered as commercial development within the Lodi General Plan. The General Plan Planning Area identifies, through the State of California Department of Conservation, as Mineral Resource Zone 1 (MRZ-1) with an extremely low likelihood that there are significant mineral resources (California Division of Mines and Geology, 1988). The closest area containing mineral significance is the MRZ-3 located approximately 1.7 miles southwest of the project site; however, their significance cannot be evaluated from available data. Nonetheless, the proposed project would not impact these resources (City of Lodi, 2009).

Furthermore, the Surface Mining and Reclamation Act of 1975 (SMARA) requires classification of land into MRZs according to the known or inferred mineral potential of the area. Under SMARA, areas are categorized into MRZs as follows:

- **MRZ-1** Areas where the available geologic information indicates no significant mineral deposits or a minimal likelihood of significant mineral deposits.

- **MRZ-2** Areas where the available geologic information indicates that there are significant mineral deposits or that there is a likelihood of significant mineral deposits. However, the significance of the deposit is undetermined.
- **MRZ-3** Areas where the available geologic information indicates that mineral deposits are inferred to exist; however, the significance of the deposit is undetermined.
- **MRZ-4** Areas where there is not enough information available to determine the presence or absence of mineral deposits.

Designated by the California Geological Survey, the project site falls within MRZ-1 as having no significant mineral deposits present (CGS, 2012). Therefore, the development of the proposed project would not result in the loss of availability of a locally-important mineral resource recovery site and impacts would be less than significant.

Cumulative Impacts

Implementation of the project would not create a significant cumulative impact to the surrounding region as there is no loss of a known mineral resource on the project site or significant mineral deposits present on the project site. As a result, no cumulative impacts related to mineral resources would occur.

5.13 NOISE

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
NOISE. Would the project result in:				
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**	

NOISE BACKGROUND

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound. A typical noise environment consists of a base of steady ambient noise that is the sum of various distant and indistinguishable noise sources. The sound from individual local sources is superimposed on this background noise. These can vary from an occasional aircraft or train passing by to virtually continuous noise from traffic on a major highway.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise as well as the time of day when the noise occurs. Most commonly, environmental sounds are described in terms of L_{eq} that has the same acoustical energy as the summation of all the time-varying events. While the equivalent continuous sound level (L_{eq}) represents the continuous sound pressure level over a given period; the Day-Night Sound level (L_{dn}) is a 24-hour average L_{eq} with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The Community Noise Equivalent Level (CNEL)

is a 24-hour average L_{eq} with a 10-dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. and an additional 5 dBA weighting during the hours of 7:00 p.m. to 10:00 p.m. to account for noise sensitivity in the evening and nighttime.

REGULATORY SETTING

State

California Government Code

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of "normally acceptable", "conditionally acceptable", "normally unacceptable", and "clearly unacceptable" noise levels for various land use types. Single-family homes are "normally acceptable" in exterior noise environments up to 60 CNEL and "conditionally acceptable" up to 70 CNEL. Multiple-family residential uses are "normally acceptable" up to 65 CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries, and churches are "normally acceptable" up to 70 CNEL, as are office buildings and business, commercial, and professional uses.

Title 24 – Building Code

The State's noise insulation standards are codified in the California Code of Regulations, Title 24: Part 1, Building Standards Administrative Code, and Part 2, California Building Code. These noise standards are applied to new construction in California for interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 65 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new multi-family residential buildings, the acceptable interior noise limit for new construction is 45 dBA CNEL.

Local

Although the project site is currently located in San Joaquin County, the project proposes annexation into the City of Lodi. Sensitive receptors nearest the project site are located within San Joaquin County. Therefore, both the County and City noise standards are presented below.

County of San Joaquin General Plan

The *San Joaquin County 2035 General Plan* (County General Plan) identifies noise goals, policies, and implementations in the Public Health and Safety Element. The Noise Policy provides a basis for comprehensive local programs and regulations to control environmental noise and protect citizens from excessive exposure. The Public Health and Safety Element contains the following goals and policies to guide land use decisions with respect to noise, which are applicable to the project:

Goal PHS-9: To protect County residents from the harmful and nuisance effects of exposure to excessive noise.

PHS-9.1: Noise standards for New Land Uses: The County shall require new development to comply with the noise standards shown in Tables 9-1 and 9-2 (*refer to Table 5.13-1*

below) through proper site and building design, such as building orientation, setbacks, barriers, and building construction practices.

PHS-9.3: Screening Distances: The County shall require new development proposed to be located adjacent to major freeways or railroad tracks to be consistent with FTA noise screening distance criteria.

PHS-9.4: Acceptable Vibration Levels: The County shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby vibration-sensitive uses based on FTA criteria.

PHS-9.5: Alleviate Existing Noise Problems: The County shall seek to alleviate existing community noise problems.

San Joaquin County Development Title

San Joaquin County Ordinance Code (County Development Title) Chapter 9-404, *Noise*, establishes standards to protect the health, safety, and welfare of those living and working in the County and to implement noise policies of the County General Plan.

County Development Title Section 9-404.040, *Noise Limits*, provides stationary and transportation noise limits for sensitive land uses. *Table 5.13-1: Maximum Allowable Noise Exposure for Noise Sensitive Land Uses* summarizes transportation and stationary related noise standards.

Table 5.13-1: Maximum Allowable Noise Exposure for Noise Sensitive Land Uses

Part I: Transportation Noise Sources		
Noise Sensitive Land Use Types	**Outdoor Activity Areas (dB L_{dn})[1]**	**Interior Spaces (dB L_{dn})**
Residential: All Housing Types and Residential Use	65	45
College and Trade School	65	45
Commercial Use Types Not Separately Listed	-	45
Community Assembly/Religious Assembly	65	45
Cultural Institutions	65	45
Hospitals and Clinics	65	45
Offices	-	45
Parks and Recreation Facilities	65	45
Schools	65	45
Part II: Stationary Noise Sources		
Sound Level	**Outdoor Activity Areas of Noise Sensitive Land Uses – Daytime[1,2] (7 a.m. to 10 p.m.)**	**Outdoor Activity Areas of Noise Sensitive Land Uses – Nighttime[1,2] (10 p.m. to 7 a.m.)**
Hourly Equivalent Sound Level (L_{eq}), dB	55	45
Maximum Sound level (L_{max}), dB	75	65
1. Where the location of outdoor activity areas is unknown or is not applicable, the noise standard shall be applied at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards shall be applied on the receiving side of noise barriers or other property line noise mitigation measures. 2. Each of the noise level standards specified shall be reduced by 5 dB for impulsive noise, single tone noise, or noise consisting primarily of speech or music. 3. If the noise source operates for less than 30 minutes per hour, then the maximum sound level standard shall apply.		
Source: San Joaquin County Development Title Update Table 9-404.040: Maximum Allowable Noise Exposure For Noise-Sensitive Land Uses, 2022.		

County Development Title Section 9-404.020, *Exemptions*, indicates that construction noise is considered exempt between the hours of 9:00 p.m. and 6:00 a.m. However, neither the County's General Plan nor the County Development Title establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes.

Section 9-404.060 includes the following relevant additional noise regulations:

a) Construction. General construction noise shall be limited to weekdays from 6:00 a.m. to 9:00 p.m. Pre-construction activities, including loading and unloading, deliveries, truck idling, backup beeps, and radios, also are limited to these construction noise hours.

1) No noise-producing construction activities shall be permitted outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the Building Official.

2) More restrictive construction noise hours may be established as a Condition of Approval of an Administrative Use Permit or a Conditional Use Permit when appropriate given the surrounding neighborhood, the type of noise, or other unique factors.

3) Any waiver granted shall take the potential noise impacts upon the surrounding neighborhood and the larger community into consideration.

4) Except in emergencies, no construction shall be permitted outside of these hours, including maintenance work on public rights-of-way, that creates construction noise.

b) Deliveries. Deliveries to or pickups from any commercial use sharing a lot line with any conforming residential use may occur between 7:00 a.m. and 10:00 p.m. daily. No deliveries to or pickups from any such use shall occur outside of these hours unless specifically authorized by a Conditional Use Permit.

c) Normal Maintenance. Maintenance of real property operations may exceed the noise standards between 6:00 a.m. and 9:00 p.m.

City of Lodi General Plan

The Lodi General Plan identifies policies and implementations in the Noise Element. The Noise Element provides a basis for comprehensive local policies to regulate environmental noise and mitigate potential impacts. *Table 5.13-2: Community Noise Exposure Matrix* lists the compatibility of land uses at various noise levels and offers criteria the City can use in evaluating land use decisions.

Table 5.13-2: Community Noise Exposure Matrix

Land Use	Maximum Community Noise Exposure (L_{dn} or CNEL, dB) by Interpretation[1, 2]		
	Normally Acceptable[3]	Conditionally Acceptable[4]	Normally Unacceptable[5]
Residential – Low Density Single Family, Duplex, Mobile Homes	60	70	75
Residential – Multifamily	65	70	75
Transient Lodging – Motels, Hotels	65	70	75
Schools, Libraries, Churches, Hospitals, Nursing Homes	65	70	75
Auditorium, Concert Halls, Amphitheaters	50	70	-
Sports Arena, Outdoor Spectator Sports	50	75	-
Playgrounds, Neighborhood Parks	67.5	72.5	-
Golf Courses, Riding Stables, Water Recreation, Cemeteries	70	80	85
Office Buildings, Business Commercial and Professional	70	75	85
Industrial, Manufacturing Utilities, Agriculture	70	80	85

1. Values that exceed any of the listed interpretations are classified as "clearly unacceptable." New construction or development should generally not be undertaken.
2. Matrix is adapted and slightly modified from the Office of Noise Control in the State Department of Health Services guidelines for local governments.
3. *Indoor Uses*: Either activities associated with land use are inherently noisy or standard construction methods will sufficiently attenuate exterior noise to an acceptable level. For land use types compatible because of inherent noise levels, sound attenuation must be provided for associated noise-sensitive indoor spaces (office, retail, etc.) to reduce exterior noise to an interior maximum of 50 dB CNEL. *Outdoor Uses*: Outdoor activities associated with land use may be carried out with minimal interference.
4. *Indoor Uses*: Noise reduction measures must be incorporated into the design of the project to attenuate exterior noise to the indoor noise levels listed in General Plan Table 9-3. *Outdoor Uses*: noise reduction measures must be incorporated into the project design to attenuate exterior noise to the outdoor noise levels list in General Plan Table 9-3. Acceptability is dependent on characteristics of each specific case.

Land Use	Maximum Community Noise Exposure (L_{dn} or CNEL, dB) by Interpretation[1, 2]		
	Normally Acceptable[3]	Conditionally Acceptable[4]	Normally Unacceptable[5]
5. *Indoor Uses*: Extensive mitigation techniques are required to make the indoor environment acceptable for indoor activities. Noise level reductions necessary to attenuate exterior noise to indoor noise levels listed in General Plan Table 9-3 are difficult to achieve and may not be feasible. *Outdoor Uses*: Severe noise interference makes the outdoor environment unacceptable for outdoor activities. Noise level reductions necessary to attenuate exterior noise to outdoor noise levels listed in General Plan Table 9-3 are difficult to achieve and may not be feasible.			
Source: City of Lodi General Plan Noise Element Table 9-2: Community Noise Exposure Matrix, 2010			

Additionally, *Table 5.13-3: Allowable Noise Exposure, Outdoor and Interior* lists acceptable exterior and interior limits of noise for various land uses.

Table 5.13-3: Allowable Noise Exposure, Outdoor and Interior

Land Use	Acceptable Limit of Noise (CNEL)[1]	
	Outdoor Activity Areas[2]	Interior Areas
Residential	60	45
Motels, Hotels	60	45
Public/Semi-Public	65	45
Recreational	65	50
Commercial	65	50
Industrial	70	65
1. Limits are based on guidelines from the California Office of Planning and Research. 2. For non-residential uses, where an outdoor activity area is not proposed, the standard does not apply.		
Source: City of Lodi General Plan Noise Element Table 9-3: Allowable Noise Exposure, Outdoor and Interior, 2010		

The Lodi General Plan Noise Element includes the following applicable guiding and implementing policies for noise which are applicable to the project:

Policy N-G1: Protect humans, the natural environment, and property from manmade hazards due to excessive noise exposure.

Policy N-G2: Protect sensitive uses, including schools, hospitals, and senior care facilities, from excessive noise.

Policy N-P1: Control and mitigate noise at the source where feasible, as opposed to at the receptor end.

Policy N-P2: Encourage the control of noise through site design, building design, landscaping, hours of operation, and other techniques for new development deemed to be noise generators.

Policy N-P4: Discourage noise sensitive uses such as residences, hospitals, schools, libraries, and rest homes from locating in areas with noise levels above 65db. Conversely, do not

permit new uses likely to produce high levels of noise (above 65db) from locating in or adjacent to areas with existing or planned noise-sensitive uses.

Policy N-P7: Require developers of potentially noise-generating new developments to mitigate the noise impacts on adjacent properties as a condition of permit approval. This should be achieved through appropriate means, such as:

- Dampening or actively canceling noise sources;
- Increasing setbacks for noise sources from adjacent dwellings;
- Using soundproofing materials and double-glazed windows;
- Screening and controlling noise sources, such as parking and loading facilities, outdoor activities, and mechanical equipment;
- Using open space, building orientation and design, landscaping and running water to mask sounds; and
- Controlling hours of operation, including deliveries and trash pickup.

Policy N-P12: Restrict the use of sound walls as a noise attenuation method to sites adjacent to State Route (SR) 99, the railroad, and industrial uses east of SR-99.

Policy N-P14: Reduce vibration impacts on noise-sensitive land uses (such as residences, hospitals, schools, libraries, and rest homes) adjacent to the railroad, SR-99, expressways, and near noise-generating industrial uses. This may be achieved through site planning, setbacks, and vibration-reduction construction methods such as insulation, soundproofing, staggered studs, double drywall layers, and double walls.

City of Lodi Municipal Code

The City of Lodi Municipal Code (Lodi Municipal Code) Noise Regulation Ordinance (Chapter 9.24) includes regulations to control excessive, offensive, or disturbing noise. Section 9.24.030 describes activities declared to cause excessive, offensive, or disturbing noise that are in violation of the municipal code. Section 9.24.030(C) states the following:

> It is unlawful for any person, firm or corporation to cause, permit, or generate any noise or sound as described herein between the hours of ten p.m. and seven a.m. which exceeds the ambient noise level at the property line of any residential property (or, if a condominium or apartment house within any adjoining apartment) as determined at the time of such reading by more than five decibels. This section shall be applicable whether such noise or sound is of a *commercial or noncommercial nature.*

Chapter 9.24.050 does exempt from its provisions any bell, siren, or similar device on any vehicle that is required by law and automatically activated by placing the vehicle transmission in reverse or any backing movement.

Additionally, the Municipal Code addresses the regulation of noise from parking of commercial vehicles. Section 10.52.080 states the following:

A. It is unlawful on any public right-of-way to stop, park or leave standing for more than five consecutive minutes, a commercial vehicle exceeding a maximum gross vehicle weight rating of ten thousand pounds within two hundred fifty feet of a residential district while operating diesel and/or auxiliary engines between the hours of ten p.m. and seven a.m. Auxiliary engines include but are not limited to refrigerator units. This distance shall be measured in a straight line within the public right-of-way from the engine to the nearest point on the district boundary (i.e., not around corners or through private property). The term "residential district" is as defined in Section 10.52.050(A). (Vehicle Code 22507)
B. This section shall not prohibit parking of commercial vehicles in the process of being loaded or unloaded.
C. This section shall not apply to parking on state highways.

Existing Noise Sources

Mobile sources of noise, especially cars, trucks, and trains are the most common and significant sources of noise in the City. Other sources of noise are the various land uses (i.e., residential, commercial, institutional, and recreational and parks activities) throughout the City that generate stationary-source noise. The existing mobile noise sources in the project area are generated by motor vehicles traveling on I-99, Kettleman Lane, and Beckman Road. The primary sources of stationary noise in the project vicinity are those associated with the surrounding residential, commercial, and agricultural uses. Such noise sources include idling vehicles, music playing, mechanical equipment (e.g., air conditioning equipment), dogs barking, and people talking and are typical of urban areas. The noise associated with these sources may represent a single-event noise occurrence or short-term noise.

Noise Measurements

To determine ambient noise levels in the project area, four short-term (10-minute) noise measurements and one long-term (24 hours) noise measurement were taken using a Larson Davis SoundExpert LxT Type I integrating sound level meter from June 27 to June 28 in 2024; refer to **Appendix D: Noise Measurement Field Data** for existing noise measurement data.

As shown in ***Figure 5.13-1: Noise Measurement Locations***, the noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. The 10-minute daytime measurements were taken between 9:50 a.m. and 10:54 a.m. The long-term noise measurement was taken for 24 hours on June 27 and June 28, 2024. *Table 5.13-4: Noise Measurements* provides the ambient noise levels measured at these locations.

Table 5.13-4: Noise Measurements

Site No.	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	L_{peak} (dBA)	Time
ST-1	Northeast portion of project site, adjacent to residence located at 5070 E. Kettleman Lane.	72.5	56.4	92.2	108.9	10:44-10:54 a.m.
ST-2	West of project site, adjacent to Beckman Road.	68.7	57.5	87.7	102.4	10:28-10:38 a.m.
ST-3	South of project site, adjacent to residence located at 14702 Beckman Road.	68.4	53.3	82.8	97.9	10:15-10:25 a.m.

ST-4	North of project site, adjacent to Hampton Inn & Suites, along Beckman Road.	69.1	51.1	81.9	96.6	9:50-10:00 a.m.
LT-1	Immediately north of project site, adjacent to E. Kettleman Lane.	75.8	51.4	109.1	122.5	1:01 p.m. (June 27, 2024)-1:01 p.m. (June 28, 2024)
Source: Noise Measurements taken by Kimley-Horn and Associates, Inc., June 27, 2024. See **Appendix D** for noise measurement results.						

Sensitive Receptors

Noise exposure standards and guidelines for various types of land uses reflect the varying noise sensitivities associated with each of these uses. Residences, hospitals, schools, guest lodging, libraries, and churches are treated as the most sensitive to noise intrusion and therefore have more stringent noise exposure targets than do other uses, such as manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance. The surrounding land uses are predominantly residential, commercial, and agricultural. As shown in *Table 5.13-5: Sensitive Receptors.* sensitive receptors near the project site include single-family residences. These distances are measured from the project site boundary to the sensitive receptor property line.

Table 5.13-5: Sensitive Receptors

Receptor Description[1]	Distance and Direction from the Project Site
Single-family Residential	Adjacent to the east
Single-family Residential	75 feet to the west
Single-family Residential	530 feet to the south
Single-family Residential	948 feet to the east
1. Located in unincorporated San Joaquin County.	
Source: Google Earth, 2024; City of Lodi, *City of Lodi Council District Map*, https://www.lodi.gov/DocumentCenter/View/5219/Council-District-Map, accessed December 2024; San Joaquin County, *San Joaquin County Community Development Geographic Information Systems*, 2019, https://sjmap.org/DistrictViewer/, accessed December 2024.	

THRESHOLDS

Although the project site is currently located in San Joaquin County, the project proposes annexation into the City of Lodi. Therefore, the project would be subject to the City of Lodi's noise standards at the time of construction. Additionally, sensitive receptors near the project site are located within San Joaquin County. Thus, project-generated noise levels at sensitive receptors would be subject to San Joaquin County noise standards.

Construction Noise

Neither the City nor the County have established quantitative construction noise standards. However, Lodi Municipal Code Chapter 9.24 prohibits noise-generating activities during nighttime hours (10:00 p.m. to 7:00 a.m.). Therefore, this analysis uses the following construction noise thresholds during daytime hours (7:00 a.m. to 10:00 p.m.).

- The FTA's construction noise threshold[11] of 80 dBA (8-hour L_{eq}) for residential uses; or
- Increase in existing ambient exterior noise levels by 10 dBA or more at a noise sensitive use.

The California Department of Transportation (Caltrans) utilizes a substantial noise increase threshold of 12 dBA for construction activities.[12] This is due to the fact that an increase of 10 dBA is generally perceived as a doubling in loudness.[13] Therefore, because construction is short-term and temporary in nature, this analysis utilizes a 10 dBA increase above existing ambient noise levels threshold. Existing ambient noise levels are show in *Table 5.13-4*.

Operation Noise

Operational noise is evaluated based on the standards set within the County's Municipal Code and General Plan. Additionally, because a change in noise levels of at least 5 dBA is required before any noticeable change in community response would be expected, an increase of 5 dBA is typically considered a substantial increase for operations.[14] Therefore, this analysis uses 5 dBA as the increase above ambient operational threshold at a noise sensitive use.

Vibrations

The County currently does not have a significance threshold to assess vibration impacts. Therefore, this analysis uses the FTA and Caltrans structural damage criterion of 0.3 inch-per-second (in/sec) peak particle velocity (PPV) for residential buildings and the human annoyance criterion of 0.4 in/sec PPV.

[11] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Table 7-2, Page 179, September 2018.
[12] California Department of Transportation, *Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects, 2020 Update*, https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/traffic-noise-protocol-april-2020-a11y.pdf, accessed December 2024.
[13] Ibid.
[14] Compiled from California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, and FHWA, *Noise Fundamentals,* 2017.

Figure 5.13-1: Noise Measurement Locations

Maverik Lodi
Initial Study/Mitigated Negative Declaration

Not to scale

Kimley»Horn

ENVIRONMENTAL IMPACTS

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?

Less Than Significant Impact with Mitigation Incorporated.

Construction

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g. land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. During construction, exterior noise levels could affect sensitive receptors near the project site. However, construction activities would occur throughout the project site and would not be concentrated at a single point near sensitive receptors. Noise levels typically attenuate (or drop off) at a rate of 6 dB per doubling of distance from point sources, such as concrete saws. During construction, exterior noise levels could affect the sensitive receptors near the project site.

Project construction activities would include site preparation, grading, building construction, paving, and architectural coating applications. Such activities may require tractors and dozers during site preparation; grader, dozer, tractors, and excavators during grading; cranes, forklifts, tractors, generator sets, and welders during building construction; pavers, rollers, and paving equipment during paving; and air compressors during architectural coating. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. The grading phase of project construction tends to be the shortest in duration and create the highest construction noise levels due to the operation of heavy equipment required to complete these activities. It should be noted that only a limited amount of equipment can operate near a given location at a particular time. Typical noise levels associated with individual construction equipment are listed in *As indicated in Table 5.13-6, construction* noise levels would be noticeable at the nearby residential uses and other properties in the project vicinity. However, actual construction-related noise activities would be lower than the conservative levels shown in *Table 5.13-6* and would cease upon completion of construction. Due to the variability of construction activities and equipment for the project, overall construction noise levels would be intermittent and would fluctuate over time. In addition, the noise levels above assume that construction noise is constant, when, in fact, construction activities and associated noise levels would fluctuate and generally be brief and sporadic, depending on the type, intensity, and location of construction activities.

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As indicated in *Table 5.13-6*, construction noise levels would be noticeable at the nearby residential uses and other properties in the project vicinity. However, actual construction-related noise activities would be lower than the conservative levels shown in *Table 5.13-6* and would cease upon

completion of construction. Due to the variability of construction activities and equipment for the project, overall construction noise levels would be intermittent and would fluctuate over time. In addition, the noise levels above assume that construction noise is constant, when, in fact, construction activities and associated noise levels would fluctuate and generally be brief and sporadic, depending on the type, intensity, and location of construction activities.

Table 5.13-6: Typical Construction Noise Levels

Equipment	Maximum Noise Level (dBA) from Source[1]
	50 feet (reference level)
Air Compressor	80
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	80
Paver	85
Pneumatic Tool	85
Pump	77
Roller	85
Saw	76
Scarifier	83
Scraper	85
Shovel	82
Truck	84
Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.	

Although the project site is currently located in San Joaquin County, the project proposes annexation into the City of Lodi. Therefore, the project would be subject to the City of Lodi's noise standards at the time of construction. Pursuant to Lodi Municipal Code Chapter 9.24, project construction activities would be prohibited to take place between the hours of 10:00 p.m. and 7:00 a.m.). While the City has established allowable construction hours, the City has not identified specific construction noise level limits.

Sensitive receptors near the project site are located within San Joaquin County. The nearest noise-sensitive receptors to the project site include single-family residences to the east, south, and west. The proposed project may expose these sensitive receptors to elevated noise levels during project

construction. However, it is acknowledged that construction activities would occur throughout the project site and would not be concentrated at the point closest to the sensitive receptors.

The County has not identified specific construction noise level limits. Thus, this analysis uses the FTA's threshold of 80 dBA (8-hour L_{eq}) for residential uses and an ambient noise level increase threshold of 10 dBA to evaluate construction noise impacts.[15]

Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) was used to calculate noise levels during construction activities; refer to **Appendix D**. RCNM is a computer program used to assess construction noise impacts and allows for user-defined construction equipment and user-defined noise limit criteria. Noise levels were calculated for each construction phase and are based on the equipment used, distance to the nearest property/receptor, and acoustical use factor for equipment.

The noise levels calculated in *Table 5.13-7: Project Construction Noise Levels*, show estimated exterior construction noise levels at the closest receptors to the east, south, and west of the project site. Based on calculations using the RCNM model, construction noise levels would range from approximately 50.6 dBA L_{eq} to 79.7 dBA L_{eq} at the nearest sensitive receptors; see *Table 5.13-7*.

As shown in *Table 5.13-7*, the loudest noise levels would be 79.7 dBA L_{eq} at the nearest residential uses to the east, which does not exceed FTA's threshold of 80 dBA (8-hour L_{eq}) for residential uses. Further, construction noise levels would not exceed the applicable ambient noise increase threshold. As a result, a less-than-significant impact would occur related to creation of a substantial temporary or periodic increase in ambient noise levels in the project vicinity.

Table 5.13-7: Project Construction Noise Levels

Construction Phase	Receptor Location			Modeled Exterior Noise Level (dBA L_{eq}) [2]	Ambient Noise Threshold (dBA L_{eq})[3]	FTA Noise Threshold (dBA L_{eq}) [4]	Exceeded?
	Land Use/ Location	Direction	Distance (feet) [1]				
Site preparation	Residential (653095.00, -4220104.00)	East	25	78.1	82.5	80	No
	Residential (652834.00, -4220024.00)	West	75	69.1	78.7		No
	Residential (652885.33, -4219824.23)	South	530	66.8	78.4		No
Grading	Residential (653095.00, -4220104.00)	East	25	79.7	82.5		No
	Residential (652834.00, -4220024.00)	West	75	72.3	78.7		No

[15] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Table 7-2, Page 179, September 2018.

Construction Phase	Receptor Location			Modeled Exterior Noise Level (dBA L_{eq}) [2]	Ambient Noise Threshold (dBA L_{eq})[3]	FTA Noise Threshold (dBA L_{eq}) [4]	Exceeded?
	Land Use/ Location	Direction	Distance (feet) [1]				
	Residential (652885.33, -4219824.23)	South	530	66.4	78.4		No
Building Construction	Residential (653095.00, -4220104.00)	East	25	78.1	82.5		No
	Residential (652834.00, -4220024.00)	West	75	72.4	78.7		No
	Residential (652885.33, -4219824.23)	South	530	63.9	78.4		No
Paving	Residential (653095.00, -4220104.00)	East	25	72.7	82.5		No
	Residential (652834.00, -4220024.00)	West	75	74.6	78.7		No
	Residential (652885.33, -4219824.23)	South	530	60.9	78.4		No
Architectural Coating	Residential (653095.00, -4220104.00)	East	25	64.2	82.5		No
	Residential (652834.00, -4220024.00)	West	75	59.7	78.7		No
	Residential (652885.33, -4219824.23)	South	530	50.6	78.4		No

Notes:
1. Distance is from the nearest receptor to the main construction activity area on the project site. Not all equipment would operate at the closest distance to the receptor.
2. Equipment was assumed to operate throughout the project site at different distances near the property line. The distances used in the RCNM model can be seen in **Appendix D**. Modeled noise levels conservatively assume the simultaneous operation of all pieces of equipment.
3. The ambient noise level increase threshold (10 dBA) was applied to existing noise levels in the project vicinity; refer to ambient noise levels in Table 5.13-4).
4. Federal Transit Authority's threshold of 80 dBA (8-hour L_{eq}) for residential uses.

Source: Federal Highway Administration, *Roadway Construction Noise Model,* 2006. Refer to **Appendix D** for noise modeling results.

Construction Traffic Noise

Because of the logarithmic nature of noise levels, a doubling of the traffic volume (assuming that the speed and vehicle mix do not also change) would result in a noise level increase of 3 dBA. As shown in *Table 5.13-9*, Kettleman Lane (I-99 On-ramp/Off-ramp to Wells Lane) and Beckman Road (Kettleman Lane to Harney Lane), the main access route for project construction, have an average daily trip volume between 1,342 and 8,380 vehicles. Project construction would generate 18 daily trips during site preparation, 27 daily trips during grading, 16 daily trips during building construction, 15 daily trips during paving, and 2 daily trips during architectural coating applications. Therefore, a maximum of 27 daily project construction trips would not double the existing traffic volume of 1,342 vehicles per day along Beckman Road or 8,380 vehicles per day along Kettleman Lane. Construction related traffic noise would not be noticeable and would not create a significant noise impact. Large trucks would be necessary to deliver building materials, remove waste materials, and depending on the final earthwork quantities, possibly import or export soil to and from off-site locations. This would be temporary and short-term.

Larger trucks needed to haul materials could result in additional noise from acceleration from engines, braking, and loading and unloading. The State of California establishes noise limits for vehicles licensed to operate on public roads using a pass-by test procedure. Pass-by noise refers to the noise level produced by an individual vehicle as it travels past a fixed location. The pass-by procedure measures the total noise emissions of a moving vehicle with a microphone. When the vehicle reaches the microphone, the vehicle is at full throttle acceleration at an engine speed calculated for its displacement. For heavy trucks, the State pass by standard is consistent with the federal limit of 80 decibels (dB). The State pass by standard for light trucks and passenger cars (less than 4.5 tons gross vehicle rating) is also 80 dB at 15 meters from the centerline. According to the FHWA, dump trucks typically generate noise levels of 76 dBA and flatbed trucks typically generate noise levels of 74 dBA, at a distance of 50 feet from the truck.[16] As such, noise from truck trips associated with the proposed project would not exceed FTA threshold levels of 90 dBA (one-hour L_{eq}) or 80 dBA (eight-hour L_{eq}).

Operations

Implementation of the project would create new sources of noise in the project vicinity. The major noise sources associated with the project that would potentially impact existing sensitive receptors include the following:

- Mechanical equipment (i.e., air conditioners, etc.);
- Restaurant and commercial retail activities (e.g., vehicle queuing and speaker systems);
- Delivery trucks activities at the loading areas (i.e., maneuvering and idling trucks, loading/unloading, and equipment noise);
- Fuel dispensing activities;
- Parking areas (i.e., car door slamming, car radios, engine start-up, and car pass-by); and
- Landscape maintenance activities; and

[16] Federal Highway Administration, *Roadway Construction Noise Model*, 2006.

- Off-site traffic noise.

As previously discussed, the project proposes annexation into the City of Lodi and would be subject to the City of Lodi's noise standards. However, sensitive receptors near the project site are located within San Joaquin County and would be subject to San Joaquin County noise standards.

Stationary Noise Sources

Implementation of the project would create new sources of noise in the project vicinity from stationary sources (i.e., mechanical equipment, restaurant and commercial retail activities, delivery trucks, fuel dispensing activities, parking areas, and landscape maintenance). *Table 5.13-8: Stationary Operational Noise Levels,* shows the noise levels generated by various stationary noise sources and the resulting noise level at the nearest receiver.

It should be noted that the commercial center (i.e., drive-thru restaurant, commercial retail, coffee drive-thru, commercial, dine-in restaurant, and grocery/drug store) is conceptual in nature and specific development is not proposed at this time. Therefore, the below analysis is based on ***Figure 2-4: Conceptual Site Plan*** and a worst-case scenario of 24-hour operation for the Maverik gasoline station and the commercial center.

Mechanical Equipment

Regarding mechanical equipment, the project would generate stationary-source noise associated with heating, ventilation, and air conditioning (HVAC) units. HVAC units typically generate noise levels of approximately 52 dBA at 50 feet.[17] Based on the site plan, the nearest commercial center HVAC units could be located as close as 80 feet from the sensitive receptors to the east. At this distance mechanical equipment noise would attenuate to 47.9 dBA. Further, the nearest Maverik gasoline station HVAC units could be located as close as 280 feet from the sensitive receptors to the west. At this distance mechanical equipment noise would attenuate to 37.0 dBA.

As shown in *Table 5.13-8*, existing noise levels near the sensitive receptors to the east and west ranged from 72.5 dBA (daytime) and 72.9 dBA (nighttime). Operation of mechanical equipment would not increase ambient noise levels beyond existing noise levels.

Outdoor Dining Noise

The project may include outdoor dining areas within the commercial center. Outdoor dining areas would be used by individuals or small groups to gather outside for a meal and may include low-level background music. Outdoor dining areas with music can generate noise levels up to approximately 82 dBA at one meter from the source.[18] The nearest sensitive receptors (single-family residences to the east) would be located approximately 135 feet from the closest potential outdoor dining area (drive-thru restaurant). At this distance, outdoor dining noise would be approximately 49.7 dBA. As shown in *Table 5.13-8*, existing noise levels near the sensitive receptors

[17] Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, July 6, 2010.
[18] Obtained from the SoundPLAN Essential version 5.1 reference noise level database.

to the east range from 72.5 dBA (daytime) to 72.9 dBA (nighttime). Therefore, outdoor dining noise would not increase ambient noise levels beyond existing noise levels.

Drive-Thru Operations

The proposed commercial center would include several drive-thru restaurants with menu boards and intercoms that would be located near the restaurant buildings. Project noise sources from drive-thru operations include amplified speech from the intercom, idling vehicles, and vehicles circulating along the drive-thru lane. The measured noise level from intercoms is 54 dBA at 32 feet.[19] The nearest sensitive receptors (single-family residences to the east) would be located as close as 35 feet from the proposed menu board and intercom. At this distance, intercom noise levels would be approximately 53.2 dBA.

In addition, automobiles idling in the drive-thru would generate a noise level of 36 dBA at approximately 100 feet (30 meters).[20] As the nearest sensitive receptors would be located approximately 30 feet from the closest drive-thru lane/queuing area, noise levels could be 46.5 dBA at the nearest sensitive receptors.

As shown in *Table 5.13-8*, existing noise levels near the sensitive receptors to the east would range from 72.5 dBA (daytime) to 72.9 dBA (nighttime). However, when combined with drive-thru operation noise levels, existing noise levels would range from 72.6 dBA (daytime) to 72.9 dBA (nighttime). Therefore, drive-thru operation noise levels would result in an increase of 0.1 dBA, which would not exceed the 5 dBA increase above ambient noise threshold.

Loading Area Noise

The project is a commercial development that would include deliveries. The primary noise associated with deliveries is the arrival and departure of trucks. Operations of the proposed project would potentially require a mixture of deliveries from vans, light trucks, and heavy-duty trucks. During loading and unloading activities, noise would be generated by the trucks' diesel engines, exhaust systems, and brakes during low gear shifting' braking activities; backing up toward the docks/loading areas; dropping down the dock ramps; and maneuvering away from the docks. Typically, heavy truck operations generate a noise level of 64 dBA at a distance of 50 feet.[21] The nearest commercial center loading area (i.e., south of the grocery/drug store) would be located approximately 193 feet from the residential uses to the north. At this distance, loading area activities would be approximately 52.3 dBA. While there would be temporary noise increases during truck maneuvering and engine idling, these impacts would be of short duration and infrequent.

[19] HM Electronics, INC. Drive-thru Sound Pressure Levels from the Menu Board or Speaker Post.

[20] Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, June 26, 2015.

[21] Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, July 6, 2010.

Table 5.13-8 shows that existing noise levels near the sensitive receptors to the east range from 72.5 dBA (daytime) to 72.9 dBA (nighttime). Therefore, commercial center loading area noise would not increase ambient noise levels beyond existing noise levels.

It should be noted that the Maverik gasoline station would not receive deliveries from heavy-duty trucks, rather vans and light-duty trucks. Noise levels from Maverik gasoline station deliveries would be similar to parking lot noise levels, discussed below.

Parking Lot and Gas Station Activities

Traffic associated with parking areas is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. However, the instantaneous maximum sound levels generated by a car door slamming, engine starting up and car pass-bys may be an annoyance to adjacent noise-sensitive receptors. Parking lot noise can also be considered a "stationary" noise source. The instantaneous maximum sound levels generated by a car door slamming, engine starting up, and car pass-bys range from 53 to 61 dBA at 50 feet.[22] Conversations in parking areas may also be an annoyance to sensitive receptors. Sound levels of speech typically range from 33 dBA at 48 feet for normal speech to 50 dBA at 50 feet for very loud speech. It should be noted that parking lot noise are instantaneous noise levels compared to noise standards in the hourly L_{eq} metric, which are averaged over the entire duration of a time period. As a result, actual noise levels over time resulting from parking lot activities would be far lower.

The project would include parking spaces throughout the project site. Additionally, 14 vehicle fueling positions and six truck fueling positions would also include similar noise sources as parking spaces, which would include vehicular circulation, louder engines, car alarms, and door slams. The nearest sensitive receptors (single-family residences) would be located approximately 150 feet from the closest fueling positions. At this distance, fueling activity noise levels would be approximately 51.5 dBA. Additionally, Maverik gasoline station parking spaces would be located approximately 170 feet from sensitive receptors (single-family residences) to the west. At this distance, parking lot noise levels would be approximately 50.4 dBA. *Table 5.13-8* shows that existing noise levels near the sensitive receptors to the west range from 68.7 dBA (daytime) to 72.9 dBA (nighttime). However, when combined with Maverik gasoline station parking lot and fueling noise levels, existing noise levels would range from 68.8 (daytime) to 72.9 dBA (nighttime). Therefore, Maverik gasoline station parking lot and fueling noise levels would result in an increase of 0.1 dBA, which would not exceed the 5 dBA increase above ambient noise threshold.

Additionally, commercial center parking spaces would be located approximately 15 feet from the nearest sensitive receptors (single-family residences) to the north. At this distance, parking lot noise levels would be approximately 71.5 dBA. *Table 5.13-8* shows that existing noise levels near the sensitive receptors to the north range from 72.5 dBA (daytime) to 72.9 dBA (nighttime). However, when combined with commercial center parking lot noise levels, existing noise levels would range from 75.0 (daytime) to 75.2 dBA (nighttime). Therefore, commercial center parking

[22] Kariel, H. G., Noise in Rural Recreational Environments, Canadian Acoustics 19(5), 3-10, 1991.

lot noise levels would result in an increase of 2.5 dBA, which would not exceed the 5 dBA increase above ambient noise threshold.

Landscape Maintenance Activities

Development and operation of the project includes new landscaping that would require periodic maintenance. Noise generated by a gasoline-powered lawnmower is estimated to be approximately 70 dBA at a distance of five feet.[23] Proposed landscaping areas at the time of this analysis is not known. Therefore, it was conservatively assumed that landscaping activities would occur up to the project site boundary. The nearest commercial center landscape maintenance activity would be located approximately 15 feet from the closest sensitive receptors (single-family residences) to the north. At this distance, landscape maintenance noise levels would be approximately 60.5 dBA. *Table 5.13-8* shows that existing noise levels near the sensitive receptors to the north range from 72.5 dBA (daytime) to 72.9 dBA (nighttime). However, when combined with commercial center landscape maintenance noise levels, existing noise levels would range from 72.8 (daytime) to 73.1 dBA (nighttime). Therefore, commercial center landscape maintenance noise levels would result in an increase of 0.3 dBA, which would not exceed the 5 dBA increase above ambient noise threshold.

Additionally, the nearest Maverik gasoline station landscape maintenance activity would be located approximately 105 feet from the closest sensitive receptors (single-family residences) to the west. At this distance, landscape maintenance noise levels would be approximately 43.6 dBA. *Table 5.13-8* shows that existing noise levels near the sensitive receptors to the west range from 68.7 dBA (daytime) to 72.9 dBA (nighttime). Therefore, Maverik gasoline station landscape maintenance noise would not increase ambient noise levels beyond existing noise levels.

Landscape maintenance activities would operate during daytime hours for brief periods of time and would not permanently increase ambient noise levels in the project vicinity. Additionally, landscape maintenance noise levels would be consistent with activities that currently occur at the surrounding uses. Further, County Development Code Section 9-404.060 states that maintenance of property may exceed the noise standards between 6:00 a.m. and 9:00 p.m.

Summary

As discussed above and shown in *Table 5.13-8*, stationary noise levels generated at the commercial center and Maverik gasoline station would not exceed the 5 dBA increase above ambient noise threshold. However, the County has identified daytime (55 dBA) and nighttime (45 dBA) noise standards for stationary noise sources. As depicted in *Table 5.13-8*, commercial center stationary noise levels would range from 46.5 to 71.5 dBA. Therefore, commercial center stationary noise levels would exceed the County's daytime (55 dBA) and nighttime (45 dBA) noise standards. As development of the commercial center is speculative, **Mitigation Measure MM NOI-1** would be required to ensure noise-generating stationary source equipment would not exceed noise regulations established by the County.

[23] U.S. EPA, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, 1971

Further, *Table 5.13-8* shows that Maverik gasoline station stationary noise levels would range from 37.0 to 51.5 dBA. Therefore, Maverik gasoline station stationary noise levels would not exceed the County's daytime (55 dBA) noise standard. Although parking and fueling noise levels may exceed the County's nighttime (45 dBA) noise standard, existing nighttime ambient noise levels would increase by 0.1 dBA. Therefore, the Maverik gasoline station nighttime stationary sources would not generate perceptible noise levels at the nearest sensitive receptors. With implementation of Mitigation Measure MM NOI-1, impacts would be less than significant.

Table 5.13-8*: Stationary Operational Noise*

Sensitive Receptor Location (Coordinates)[1]	Noise Source	Reference Level (dBA)[2]	Reference Distance (feet)	Distance to Receptor (feet)	Level at Receptor (dBA)[3]	Daytime / Nighttime			Significant?
						Ambient Level (dBA)[4]	Combined Noise at Receptor (dBA)	Incremental Increase (dBA)	
Commercial Center									
653095.00, 4220104.00	Mechanical Equipment[5]	52	50	80	47.9	72.5 / 72.9	72.5 / 72.9	0.0 / 0.0	No
653095.00, 4220104.00	Outdoor Dining Noise[6]	82	3.28	135	49.7	72.5 / 72.9	72.5 / 72.9	0.0 / 0.0	No
653095.00, 4220104.00	Intercom[7]	54	32	35	53.2	72.5 / 72.9	72.6 / 72.9	0.1 / 0.0	No
653095.00, 4220104.00	Drive-Thru Idling[8]	36	100	30	46.5	72.5 / 72.9	72.5 / 72.9	0.0 / 0.0	No
653129.00, 4220078.00	Loading Area[9]	64	50	193	52.3	72.5 / 72.9	72.5 / 72.9	0.0 / 0.0	No
653095.00, 4220104.00	Parking[10]	61	50	15	71.5	72.5 / 72.9	75.0 / 75.2	2.5 / 2.3	No
653095.00, 4220104.00	Landscape Maintenance[11]	52	50	80	47.9	72.5 / 72.9	72.8 / 73.1	0.3 / 0.2	No
Maverik Gasoline Station									
652815.08, 4220109.79	Mechanical Equipment[5]	52	50	280	37.0	68.7 / 72.9	68.7 / 72.9	0.0 / 0.0	No
652815.08, 4220109.79	Parking[10]	61	50	170	50.4	68.7 / 72.9	68.8 / 72.9	0.1 / 0.0	No
652834.00, 4220024.00	Fueling[10]	61	50	150	51.5	68.7 / 72.9	68.8 / 72.9	0.1 / 0.0	No

Sensitive Receptor Location (Coordinates)[1]	Noise Source	Reference Level (dBA)[2]	Reference Distance (feet)	Distance to Receptor (feet)	Level at Receptor (dBA)[3]	Daytime / Nighttime			Significant?
						Ambient Level (dBA)[4]	Combined Noise at Receptor (dBA)	Incremental Increase (dBA)	
652834.00, 4220024.00	Landscape Maintenance[11]	70	5	105	43.6	68.7 / 72.9	68.7 /72.9	0.0 / 0.0	No

1. The sensitive receptor location is listed in Universal Transverse Mercator (UTM) coordinates.
2. The distance is from the location of the operational noise source to the sensitive receptor property line.
3. Calculated using the inverse square law formula for sound attenuation: $dBA_2 = dBA_1+20Log(d_1/d_2)$, where dBA_2 = estimated noise level at receptor; dBA_1 = reference noise level; d_1 = reference distance; d_2 = receptor location distance.
4. Measured ambient noise levels ranged from 68.7 dBA and 72.9 dBA (refer to Table 5.13-4). The lowest measured level at the closest residential receptor is conservatively used for this evaluation.
5. Source for reference level: Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, July 6, 2010.
6. Source for reference level: Obtained from the SoundPLAN Essential version 5.1 reference noise level database
7. Source for reference level: HM Electronics, INC. *Drive-thru Sound Pressure Levels from the Menu Board or Speaker Post*.
8. Source for reference level: Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, June 26, 2015.
9. Source for reference level: Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, July 6, 2010.
10. Source for reference level: Kariel, H. G., Noise in Rural Recreational Environments, Canadian Acoustics 19(5), 3-10, 1991.
11. Source for reference level: U.S. EPA, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, 1971.

Traffic Noise

The proposed project would result in additional traffic on adjacent roadways from daily activities, thereby increasing vehicular noise in the vicinity of existing and proposed land uses. Based on the *Lodi Maverik Gas Station Traffic Study Technical Memorandum* (Traffic Memo) prepared by GHD (dated September 30, 2024), typical daily activities are forecast to generate a total of 11,053 daily vehicle trips. However, with internal capture and pass-by trips, the project would result in 4,818 net new trips. In general, traffic noise level increases of less than 3 dBA is barely perceptible to people, while a 5-dBA increase is readily noticeable. Generally, traffic volumes on project area roadways would have to approximately double for the resulting traffic noise levels to increase by 3 dBA. Therefore, permanent increases in ambient noise levels of less than 3 dBA are considered to be less than significant.

Traffic noise levels for roadways primarily affected by the project were calculated using the FHWA's Highway Noise Prediction Model (FHWA-RD-77-108). Traffic noise modeling was conducted for conditions with and without the project, based on traffic volumes obtained from the Traffic Memo along with City and County data.[24,25] The calculated traffic noise levels for the "Opening Year Without Project" and "Opening Year With Project" scenarios are compared in *Table 5.13-9: Opening Year Traffic Noise Levels*. As depicted in *Table 5.13-9*, under the "Opening Year Without Project" scenario, noise levels would range from approximately 55.0 dBA to 66.2 dBA, with the highest noise levels occurring along Kettleman Lane. The "Opening Year With Project" scenario

[24] City of Lodi, *Average Daily Traffic (ADT) Volume Map*, https://www.lodi.gov/DocumentCenter/View/744/Traffic-Volume-PDF, accessed December 2024.
[25] San Joaquin County Public Works, *ADT Map*, https://san-joaquin-county-public-works-sjc-gis.hub.arcgis.com/datasets/sjc-gis::adt/explore?location=38.102143%2C-121.256040%2C17.81, accessed December 2024.

noise levels would range from approximately 68.9 dBA to 72.0 dBA, with the highest noise levels also occurring along Kettleman Lane.

Table 5.13-9: Opening Year Traffic Noise Levels

Roadway Segment	Opening Year Without Project		Opening Year With Project		Change	Existing Ambient Noise Level[1]	Significant Impacts
	ADT[1]	dBA CNEL at 50 feet from Roadway Centerline	ADT[2]	dBA CNEL at 50 feet from Roadway Centerline			
Kettleman Lane							
I-99 On-ramp/Off-ramp to Wells Lane	8,380	66.2	14,621	72.0	5.9	80.2	No
Beckman Road							
Kettleman Lane to Harney Lane	1,342	55.0	3,055	68.9	13.9	80.2	No

ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level.
1. ADT volume sources: City of Lodi, *Average Daily Traffic (ADT) Volume Map*, https://www.lodi.gov/DocumentCenter/View/744/Traffic-Volume-PDF, accessed December 2024; San Joaquin County Public Works, *ADT Map*, https://san-joaquin-county-public-works-sjc-gis.hub.arcgis.com/datasets/sjc-gis::adt/explore?location=38.102143%2C-121.256040%2C17.81, accessed December 2024.
2. ADTs derived from the *Lodi Maverik Gas Station Traffic Study Technical Memorandum* prepared by GHD (dated September 30, 2024).
3. Measured L_{dn} at noise measurement location LT-1; refer to **Appendix D**.

As depicted in *Table 5.13-9*, the "Opening Year With Project" scenario traffic noise levels would exceed the 3.0 dBA increase significance threshold along the surrounding roadways. However, the "Opening Year With Project" scenario traffic noise levels would not exceed the existing ambient noise level in the project vicinity. Therefore, the project would not result in a perceptible increase in traffic noise levels and impacts would be less than significant.

MM NOI-1 Prior to issuance of building permits, the property owner/developer shall demonstrate compliance with the San Joaquin County Development Title Chapter 9-404, *Noise*, for any future commercial center development projects that would include stationary noise sources, such as loading, shipping, or parking facilities. The property owner/developer shall submit an Operational Noise Reduction Plan to the City of Lodi Planning Director for review and approval. The plan shall identify specific techniques and measures to reduce on-site stationary operational noise to ensure compliance with the stationary noise standards within San Joaquin County Development Title Chapter 9-404, *Noise*; refer to *Table 5.13-1*. Noise reduction design features may include, but are not limited to, locating stationary noise sources on the site to be shielded by structures (buildings, enclosures, or sound walls).

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact with Mitigation Incorporated.

Construction

Increases in groundborne vibration levels attributable to the project would be primarily associated with construction-related activities. Construction on the project site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases

in distance. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on soil composition and underground geological layer between vibration source and receiver. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. The County does not provide numerical vibration standards for construction activities. As the nearest structure is a residential building to the east of the project site, this impact discussion uses the FTA and Caltrans structural damage criterion of 0.3 in/sec PPV for residential buildings and the human annoyance criterion of 0.4 in/sec PPV.

Table 5.13-10: Typical Construction Equipment Vibration Levels, lists vibration levels for typical construction equipment. It should be noted that the project would not require the use of pile drivers. Groundborne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Table 5.13-10: Typical Construction Equipment Vibration Levels

Equipment	Peak Particle Velocity at 5 Feet (in/sec)	Peak Particle Velocity at 10 Feet (in/sec)	Peak Particle Velocity at 12 Feet (in/sec)	Peak Particle Velocity at 20 Feet (in/sec)[1]
Vibratory Roller	2.348	0.830	0.631	0.293
Large Bulldozer	0.995	0.352	0.268	0.124
Loaded Trucks	0.850	0.300	0.229	0.106
Jackhammer	0.391	0.138	0.105	0.049
Small Bulldozer/Tractors	0.034	0.012	0.009	0.004

Notes:
1. Calculated using the following formula: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$
where: PPV_{equip} = the peak particle velocity in in/sec of the equipment adjusted for the distance
PPV_{ref} = the reference vibration level in in/sec from Table 7-4 of the Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018.
D = the distance from the equipment to the receiver

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018.

Construction activities are anticipated to occur up to the project boundary line. Therefore, the nearest structure (i.e. residential building) would be located approximately 5 feet to the north of the commercial center project site boundary. As indicated in *Table 5.13-10*, vibration velocities from typical heavy construction equipment operations that would be used during project construction range from 0.034 to 2.348 in/sec PPV at 5 feet from the source of activity. Therefore, commercial center construction groundborne vibration would exceed the structural damage criterion (0.3 in/sec PPV) and human annoyance criterion (0.4 in/sec PPV). **Mitigation Measure MM NOI-2** would be required to reduce vibration impacts to a less than significant level. Mitigation Measure MM NOI-2 would require a buffer distance for heavy equipment operation adjacent to

the existing residential buildings to ensure groundborne vibration generated by commercial center construction would not exceed the structural damage criterion (0.3 in/sec PPV) and human annoyance criterion (0.4 in/sec PPV). It should be noted that Mitigation Measure MM NOI-1 would only apply to the commercial center development. Development of the Maverik gasoline station would not require vibration-generating construction equipment to operate within 20 feet of structures or sensitive receptors. With implementation of Mitigation Measure MM NOI-2, impacts would be less than significant.

Operations

The project would not generate groundborne vibration that could be felt at surrounding uses. Although the project would generate truck trips at the Maverik gasoline station, the truck movement would generally be low-speed (i.e., less than 15 miles per hour) and would occur over new, smooth surfaces. For perspective, Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses and notes that "heavy trucks, and quite frequently buses, generate the highest earthborn vibrations of normal traffic." Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that "vibrations measured on freeway shoulders (five meters from the centerline of the nearest lane) have never exceeded 0.08 inches per second, with the worst combinations of heavy trucks and poor roadway conditions (while such trucks were moving at freeway speeds). This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings)".[26] Since the project's truck movements would be at low speed (not at freeway speeds) and would be over smooth surfaces (not under poor roadway conditions), Project-related vibration associated with truck activity would not result in excessive groundborne vibrations; no vehicle-generated vibration impacts would occur. In addition, there are no sources of substantial groundborne vibration associated with the Project, such as rail or subways. The project would not create or cause any vibration impacts due to operations and impacts would be less than significant.

MM NOI-2 The following measures shall be incorporated on all grading and building plans and specifications subject to approval of the City's Building and Safety Division prior to issuance of a grading permit:

- The developer shall ensure construction equipment will not approach the construction buffer zone adjacent to the residential buildings (i.e., 5070 E. Kettleman Lane, 5100 E. Kettleman Lane, 5136 E. Kettleman Lane, 5174 E. Kettleman Lane, 5200 E. Kettleman Lane, and 5242 E. Kettleman Lane) along portions of the project's northern and eastern project boundary. The buffer zone shall be tiered based on distances established in *Table 5.13-10: Typical Construction Equipment Vibration Levels*. As shown in *Table 5.13-10*, vibratory rollers shall not operate within 20 feet of the residential buildings; large bulldozers shall not operate within 12 feet of the residential buildings; and loaded trucks, jackhammers, and small bulldozers/tractors shall not operate within 10 feet of the residential buildings.

[26] California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol* ("TeNS"), September 2013.

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?

Less Than Significant Impact. The nearest airport to the project site is the Lodi Airpark located approximately 3.93 miles southwest of the project site. The project site lies outside of the CNEL noise contours shown in the Stockton Metropolitan Airport Land Use Compatibility Plan Update report published in May 2016 and amended in January 2018.[27] Aircraft-related noise at the project site would not substantially increase ambient noise levels. Exterior noise levels resulting from aircraft would be compatible with the proposed project. By ensuring compliance with the City's normally acceptable noise level standards, interior noise levels would also be considered acceptable with aircraft noise. Therefore, the project would not expose people residing or working in the project area to excessive airport- or airstrip-related noise levels and no mitigation is required.

Cumulative Impacts

Cumulative Construction Noise

The project's construction activities, when properly mitigated, would not result in a substantial temporary increase in ambient noise levels. The City of Lodi limits construction to the hours of 7:00 a.m. to 10:00 p.m. on any day. The project would contribute to other proximate construction noise impacts if construction activities were conducted concurrently. However, based on the noise analysis above, the project's construction-related noise impacts would be less than significant following compliance with local regulations.

Construction activities at other planned and approved projects would be required to take place during daytime hours, and the City/County and project applicants would be required to evaluate construction noise impacts and implement mitigation, if necessary, to minimize noise impacts. Each project would be required to comply with the applicable Lodi Municipal Code/County Development Title limitations on allowable hours of construction. Therefore, project construction would not contribute to cumulative impacts and impacts in this regard are not cumulatively considerable.

Cumulative Operational Noise

Cumulative noise impacts describe how much noise levels are projected to increase over existing conditions with the development of the project and other foreseeable projects. Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to buildout of the project and other projects in the vicinity. However, noise from generators and other stationary sources could also generate cumulative noise levels.

Stationary Noise

As discussed above, impacts from the project's operations would be less than significant with implementation of Mitigation Measure MM NOI-1. Due to site distance, intervening land uses, and the

[27] San Joaquin County's Aviation System Stockton Metropolitan Airport, *Airport Land Use Compatibility Plan Update for Stockton Metropolitan Airport,* May 2016.

fact that noise dissipates as it travels away from its source, noise impacts from on-site activities and other stationary sources would be limited to the project site and vicinity. No known past, present, or reasonably foreseeable projects would compound or increase the operational noise levels generated by the project. Thus, cumulative operational noise impacts from related projects, in conjunction with project-specific noise impacts, would not be cumulatively significant.

Traffic Noise

A project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. A described above, implementation of the project would generate increased traffic volumes along study roadway segments. The project is expected to generate a net of 4,818 average daily trips, which would not result in an increase above ambient noise levels. Therefore, project traffic noise would not be perceptible and would not be cumulatively significant.

5.14 POPULATION AND HOUSING

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
POPULATION AND HOUSING. Would the project:				
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**	

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)?

Less Than Significant Impact. The project site is designated as Commercial in the Lodi General Plan planning area and zoned General Agriculture (AG-40) in the San Joaquin County Development Title (San Joaquin County, 2016). The parcel is proposed to be zoned General Commercial (GC) within the City of Lodi with annexation. The proposed project does not propose any residential uses that could generate new residents within the City. The proposed project includes a gas service station, auto-related services, restaurants (sit down and QSR's), coffee, grocery, and pharmacy. The shops, grocery store, and gas station would serve the existing population in the surrounding area and would not substantially induce unplanned population growth. In addition, project construction and operation would create new employment opportunities. The workers are anticipated to come from within the City or surrounding jurisdictions and commute daily to the site. Although it is possible that demand for workers could induce some people to move to the area this is anticipated to be a small number relative to total demand for construction workers and permanent employees. It is anticipated that, with the recent and continuing growth of the City, there are adequate numbers of people already residing in the area to work on or at the Maverik Lodi site. Therefore, impacts from the proposed project to unplanned population growth are less than significant.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Less Than Significant Impact. As mentioned above, the project site is not zoned or designated in the General plan to be used for residential. There are no existing housing units, or permanent structures on the project site, therefore the project would not displace housing or people, or require construction of replacement housing elsewhere. Therefore, impacts would be less than significant.

Cumulative Impacts

Overall, the project site would serve the existing demand from the population within the local vicinity. The proposed project would be consistent with the planned land uses in the City's General Plan and the population and employment projections for the City and the region as a whole. Impacts from cumulative growth are considered in the context of their consistency with these local and regional planning efforts. Therefore, the proposed project would not cause a cumulatively considerable impact on population and housing and no mitigation is required.

5.15 PUBLIC SERVICES

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
PUBLIC SERVICES. Would the project:				
a) 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:				
i) Fire protection?			**X**	
ii) Police protection?			**X**	
iii) Schools?			**X**	
iv) Parks?			**X**	
v) Other public facilities?			**X**	

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:

i) Fire protection?

Less Than Significant Impact. Fire protection for the project site is currently served by the Woodbridge Fire District. As part of the annexation process, the project site would be detached from the Woodbridge Fire District service area and be annexed into the City of Lodi. Upon annexation fire service would be provided by the Lodi Fire Department. There are four Fire Stations located within the City of Lodi. Fire Station 2 at 2 South Cherokee Lane is the closest to the project site, located 1.2 miles northeast. The City of Lodi's Fire Department will review the development plans for the project to ensure the development adheres to the Fire Departments requirements and the project would include the payment of standard City development impact fees, which include a fee for fire protection service impacts. The nominal population growth associated with the project would incrementally increase the demand for fire protection and emergency medical services to the project site. The project site is included as a commercial area in the City's General

Plan. Furthermore, the project does not propose, and would not create a need for, new/physically altered fire protection facilities, thus, less than significant environmental impacts would occur in this regard. Finally, the project would be constructed to meet the latest CBC requirements and the project is subject to fire suppression development impact fees and other standards and conditions required by the City and County Fire. As such, a less than significant impact would occur.

ii) Police protection?

Less Than Significant Impact. The City of Lodi's Police Department is under contract to provide police protection and public safety services within the city, and would include the project site with the proposed annexation. The Lodi Police Department is located approximately 1.8 miles northeast from the project site. The nominal population growth associated with the project would incrementally increase the demand for police protection services to the project site. However, the proposed commercial development would not result in any unique or more extensive crime problems that cannot be handled with the existing level of police resources. Additionally, the project would not have a significant impact on police response times, because the project site is planned commercial consistent with the City's General Plan and is subject to a police fee per 1,000 square feet of developed building. Therefore, project impacts concerning police protection services would be less than significant and no mitigation is required. Additionally, the project does not propose, and would not create a need for, new/physically altered police protection facilities; thus, less than significant environmental impacts would occur in this regard.

iii) Schools?

Less Than Significant Impact. The following schools are in the local vicinity of the project site; Lodi Academy approximately 0.5 mile to the northeast, Heritage Elementary School approximately 0.9 miles northeast, Lois E. Borchardt Elementary School approximately 0.8 miles southeast, Lois E. Borchardt Elementary School approximately 1.6 miles southeast, Rio Valley Charter School approximately 1.6 miles west, Leroy Nichols Elementary School approximately 1.5 miles, Lodi Middle School approximately 1.8 miles northwest, and Lawrence Elementary School approximately 1.9 miles northeast. The nominal population growth due to the proposed project would not cause any significant increase of demand on the above listed schools in the area. According to Government Code Section 65996, the payment of development fees authorized by SB 50 are deemed to be full and complete school facilities mitigation. The project would be required to pay mandated development fees for commercial buildings. As such, impacts are anticipated to be less than significant impact.

iv) Parks?

Less Than Significant Impact. Parks in the local vicinity to the project site include, Blakely Park approximately 0.7 miles northwest, Salas Park approximately 0.9 miles southwest, End of Century Park approximately 1.1 miles southwest, Hemlock Park approximately 1.1 miles southwest, Orchard Lane Park approximately 1.6 miles southwest, Hale Park approximately 1.5 miles northwest, Lawrence Park approximately 1.6 miles northwest, and Emerson Park approximately 1.8 miles northwest. Due to proposed commercial uses it is not anticipated that the project would

create additional need for recreational facilities. The project overall would only result in nominal population growth. Although the project would bring new residents to the general area, the use of surrounding parks and other facilities has been accounted for in the General Plan. The proposed commercial development would not significantly increase the demand of such services and a less than significant impact would occur.

v) Other public facilities?

Less Than Significant Impact. Other public facilities in the area such as health care, production, commercial, retail, residential, etc. would not be adversely impacted because the proposed project, with annexation into the City and zone change, would be consistent with the City of Lodi General Plan. Therefore, impacts would be less than significant.

Cumulative Impacts

The project, with annexation and zone change, would be consistent with the current General Plan and Zoning designations, the project would not result in substantial incremental effects to public services or facilities that could be compounded or increased when considered together with similar effects from other past, present, and reasonably foreseeable projects. The project alone would not result in cumulatively considerable impacts to public services or facilities.

5.16 RECREATION

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
RECREATION.				
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**	

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?

Less Than Significant Impact. The closest existing neighborhood park is Blakely Park at 1050 S Stockton Street, Lodi, located approximately 0.7 miles northwest of the project site. The nature of the commercial uses of the proposed project is not likely to generate an increase in population that would use existing recreational facilities in the area. The proposed commercial uses include, a service station, auto-related services, restaurants (sit down and QSR's), coffee, grocery, and pharmacy. These uses do not lead to a population that would increase use in the surrounding area, such that substantial physical deterioration of recreational facilities would occur or be accelerated. Therefore, the project would have a less than significant impact.

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?

Less Than Significant Impact. The proposed project does not include any recreational facilities. The proposed commercial uses include, a service station, auto-related services, restaurants (sit down and QSR's), coffee, grocery, and pharmacy. The proposed project would not induce population growth in a way that would require the construction or expansion of recreational facilities. The proposed uses do not lead to a population that would increase use in the surrounding area. Therefore, the proposed project would not have a significant adverse physical effect on the environment, and potential impacts would be less than significant.

Cumulative Impacts

Development of the proposed project is not anticipated to create a significant cumulative increase of recreational facilities. The proposed project would not create a substantial population increase that would

result in a significant impact on existing recreational facilities. Therefore, no cumulative impacts on recreational facilities would occur.

5.17 TRANSPORTATION

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
TRANSPORTATION. Would the project:				
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**	

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

Less Than Significant with Mitigation Incorporated. The proposed project would be located in the southeast corner of Kettleman Lane and Business Park Drive/Beckman Road (West), just east of Interstate 5 (I-5). Kettleman Lane is a major arterial road that passes through mixed-use centers, office, low density residential, medium density residential, high density residential, commercial, mixed-use corridors, and industrial land uses. Kettleman Lane is planned to be 6 lanes between the City limit and Guild Avenue/Wells Lane and 4 lanes east of Guild Avenue. Kettleman Lane runs east-west along the Highway 12 alignment within the City of Lodi with connections to both I-5 and Highway 99. The roadway is referred to as East Kettleman Lane within the project vicinity. East Kettleman Lane is a four-lane major arterial street west of Highway 99 and a four-lane minor arterial street east of Highway 99. Beckman Road south of East Kettleman Lane is a two-lane collector in the study area which runs to East Harney Lane. Highway 99 runs north-south through the City of Lodi and is immediately adjacent to the project site.

Directly north of the project site, sidewalk coverage is limited to the north side of East Kettleman Lane and the west side of Beckman Road (East). West of the project site, no sidewalk is currently provided along Beckman Road (West). No marked crosswalks are available to travel across East Kettleman Lane within the direct vicinity of the project. The nearest crosswalk is located approximately 0.13 miles west of the project site. Lodi GrapeLine Route 5 partially runs along Cherokee Lane and brings travelers to and from the Lodi Transit Station on South Sacramento Street. The closest transit stop to the proposed project site is at the intersection of East Kettleman Lane and Cherokee Lane for Route 5 (weekday) and Route 5 and 31 (weekend) and is within a

quarter-mile of the project site. The site will have one (1) full access driveway on Kettleman Lane and two (2) full access driveways on Beckman Road (West). The proposed site would utilize the existing sidewalk facility available along the north side of East Kettleman Lane, would install sidewalks along Beckman Road along the project's western boundary and along East Kettleman Lane along the northern boundary, and provide pedestrian walkways to access the stores and parking spots. The proposed project would be consistent with City Public Improvement Design Standards and Standard Plans.

A Traffic Study was conducted and summarized in a technical memorandum prepared by GHD. See **Appendix E: Traffic Study Technical Memorandum**. The Study provides an overview of trip generation, site access, circulation, and potential impacts to nearby intersections.

During construction, the predominant vehicle routes (for haul trucks) would follow East Kettleman Lane from Highway 99 and then turn onto Beckman Road (West). The presence of large and slow-moving vehicles and construction equipment on streets in the vicinity of the project site may result in potential hazards to motorists. Additionally, project construction activities may result in temporary lane closures along East Kettleman Lane.

Accordingly, mitigation is proposed requiring the project applicant to implement a Construction Traffic Control Plan during construction activities to minimize impacts on surrounding roadways and nearby parking areas, as provided under Mitigation Measure MM TRANS-1. With implementation of Mitigation Measure MM TRANS-1, potential impacts are considered less than significant.

MM TRANS-1: Prior to issuance of grading permits, the applicant shall submit a Construction Traffic Control Plan to the City of Lodi for review and approval. The plan shall identify the timing and routing of all major construction equipment and trucking to avoid potential traffic congestion and delays on the local street network. The plan shall encourage the use of Highway 99, East Kettleman Lane, and Beckman Road (West) wherever practical. Anticipated temporary road closures should be identified, along with safety measures and detours. If necessary, construction equipment and materials deliveries shall be limited to off-peak hours to avoid conflicts with local traffic circulation. The plan shall also identify suitable locations for construction worker parking.

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

Less Than Significant Impact. CEQA Guidelines Section 15064.3 states that "vehicle miles traveled" (VMT) is the preferred metric evaluating transportation impacts, rather than LOS. VMT measures the total miles traveled by vehicles generated by a project. While LOS focuses on motor vehicle traffic, VMT accounts for the total environmental impact of a project on transportation, including use of travel modes such as buses or bicycles. Section 15064.3(b) sets forth the criteria for analyzing transportation impacts using the preferred VMT metric.

SB 743 is part of a long-standing policy effort by the California legislature to improve California's sustainability and reduce greenhouse gas emissions through denser infill development, a reduction in single occupancy vehicles, improved mass transit, and other actions. Recognizing that the current environmental analysis techniques are, at times, encouraging development that is inconsistent with this vision, the legislature enacted into law change the basis of environmental analysis for transportation impacts from Level of Service (LOS) to Vehicle Miles Travelled (VMT). VMT is understood to be a good proxy for evaluating Greenhouse Gas (GHG) and other transportation related impacts that the State is actively trying to address. While the use of VMT to determine significant transportation, impacts has only been considered recently, it is by no means a new performance metric and has long been used as a basis for transportation system evaluations and as an important metric for evaluating the performance of Travel Demand Models.

In January 2019, the Natural Resources Agency finalized updates to the CEQA Guidelines including the incorporation of SB 743 modifications. The Guidelines' changes were approved by the Office of Administrative Law and are now in effect. Specific to SB 743, Section 15064.3(c) states, "A lead agency may elect to be governed by the provisions of this section immediately. The provisions apply statewide as of July 1, 2020."

To help aid lead agencies with SB 743 implementation, the Governor's Office of Planning and Research (OPR) produced the Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) that provides guidance about the variety of implementation questions they face with respect to shifting to a VMT metric. Key guidance from this document includes:

- VMT is the most appropriate metric to evaluate a project's transportation impact.
- OPR recommends tour- and trip-based travel models to estimate VMT, but ultimately defers to local agencies to determine the appropriate tools.
- OPR recommends measuring VMT for residential and office projects on a "per rate" basis.
- OPR states that by adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Generally, retail development including stores smaller than 50,000 square feet might be considered local serving.
- OPR recommends that where a project replaces existing VMT-generating land uses, if the replacement leads to a net overall decrease in VMT, the project would lead to a less-than-significant transportation impact. If the project leads to a net overall increase in VMT, then the thresholds described above should apply.
- Lead agencies have the discretion to set or apply their own significance thresholds.

Recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA considers the VMT performance of residential and non-residential components of a project separately, using the efficiency metrics of VMT per capita and VMT per employee, respectively. For retail components of a project, or other customer-

focused uses, the citywide VMT change is analyzed. The recommended thresholds of significance are summarized below for each of these components:

- Residential – 15% below baseline (existing) average VMT per Capita
- Employment-based land uses (e.g., office) – 15% below baseline (existing) average VMT per Employee
- Customer-based non-residential land uses (e.g., retail) – No net increase in VMT

The City of Lodi prepared a SB 743 Implementation Guidelines in July 2020 to present recommendations for implementing SB 743 within the City. The guidelines present VMT calculations, proposed VMT thresholds of significance for land use and roadway projects, and mitigation measures and updates to the significance criteria and VMT thresholds.

The following assumptions for the purposes of SB 743 analysis were used to determine significance.

Retail less *than* 50,000 square feet (drive-thru restaurant, commercial retail, coffee drive-thru, commercial store, dine-in restaurant, grocery/drug store, and Maverik gas station)

The Governor's Office of Planning and Research's *Technical Advisory on Evaluating Transportation Impacts in CEQA*[28] specifically addresses some of the key issues surrounding how a local-serving retail store should be evaluated in terms of its VMT impact. As described, the threshold for significance for retail uses is "a net increase." This means that if a proposed retail use results in additional VMT, it would result in a finding of significance.

Local-serving retail primarily serves preexisting needs (i.e., it does not generate new trips because it meets existing demand). Because of this, local-serving retail uses can be presumed to reduce trip lengths when a new store is proposed. Essentially, the assumption is that someone will travel to a newly constructed local-serving store because of its proximity, rather than that the proposed retail store is fulfilling an unmet need (i.e., the person had an existing need that was met by the retail located farther away and is now traveling to the new retail use because it is closer to the person's origin location). This results in a trip on the roadway network becoming shorter, rather than adding a new trip to the roadway network, which would result in an impact on the overall transportation system. Conversely, residential and office land uses often drive new trips, given that they introduce new participants to the transportation system.

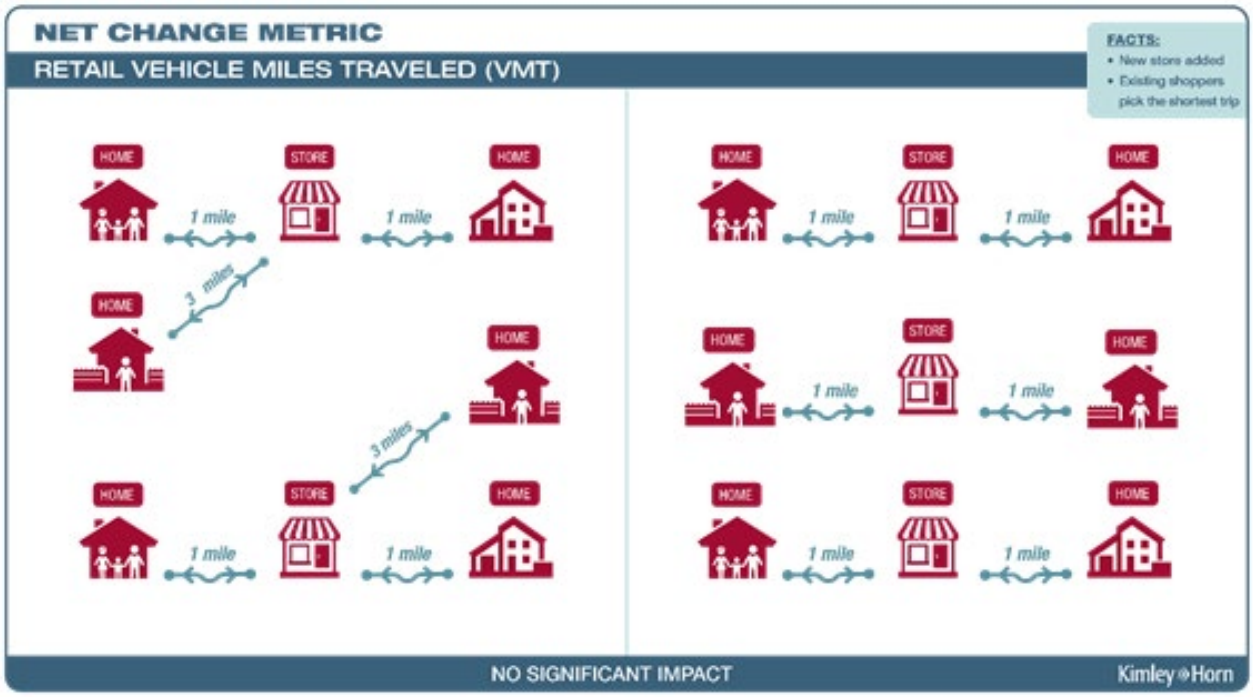
The *Technical Advisory on Evaluating Transportation Impacts in CEQA* provides for a general threshold of 50,000 square feet per establishment as an indicator as to whether a retail store can be considered local-serving or not.

Exhibit 1 visually demonstrates the basis for this finding. Introducing a new retail store often has the effect of redistributing existing customer trips in a manner that reduces average trip lengths,

[28] *Technical Advisory on Evaluating Transportation Impacts in CEQA*. Governor's Office of Planning and Research. December 2018. Page 16.

thereby resulting in a VMT reduction (i.e., trip segments that were 3 miles before the new retail store are reduced to 1 mile with the addition of the new retail store). Therefore, it can be presumed that VMT related *impacts* from the proposed drive-thru restaurant, commercial retail, coffee drive-thru, commercial store, dine-in restaurant, grocery/drug store, and Maverik gas station would be less than significant.

Exhibit 1: Vehicle Miles Traveled (VMT) by Land Use



Therefore, all components of the proposed project would result in shorter trips and therefore lower VMT. The project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) and impacts would be less than significant.

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

Less Than Significant Impact. Within the project site the proposed drive aisles would be of adequate size to provide sufficient space to accommodate standard auto traffic and, where needed, heavy vehicles. The service station is expected to serve both standard vehicles and trucks. Trucks are expected to use the driveway off of Beckman Road to enter the fueling station and exit through the driveway at Kettleman Lane, where they would be able to make a left turn to travel west along East Kettleman Lane. Enough space would be provided behind the major store for loading trucks to access the facility. The loading trucks for the Grocery/Drug store would also use the Beckman Road entrance. Since the trucks are expected to arrive/depart at off-peak hours, it won't impact the pedestrians accessing the major store. Two restaurants/coffee shops with drive-through windows would have enough space to queue outside the facility. The planned drive-thru restaurant is designed with double lane storage to accommodate a higher volume of queuing. The proposed project is not anticipated to increase hazards due to geometric design or incompatible use and impacts would be less than significant.

d) Result in inadequate emergency access?

Less Than Significant Impact. Emergency vehicle access would be maintained at all times throughout construction activities, in accordance with the City's routine/standard construction specifications. Further, construction activities would not impede emergency access to any local roadways or surrounding properties. All driveways and internal site access roads would be constructed to accommodate all emergency vehicles and personnel. Further emergency access discussion is located within Section 5.9, Hazards. Project impacts regarding emergency access would be less than significant.

Cumulative Impacts

The project would reduce VMT by shortening trips. Therefore, the proposed project would not result in incremental effects to transportation that could be compounded or increased when considered together with similar effects from other past, present, and reasonably foreseeable probable future projects. Potential impacts are not cumulatively considerable and less than significant.

5.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
TRIBAL CULTURAL RESOURCES. Would the project:				
a) 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:				
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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?		**X**		

a) 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:

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)?

And,

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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less Than Significant with Mitigation Incorporated. A Cultural Resources Technical Report for The project site was conducted by Rincon Consultants, Inc. on November 2024. As previously mentioned, there were no historical resources found on-site, this is substantiated through a CHRIS records search, a Sacred Lands File search, archival and background research, a pedestrian survey, an extended phase I (XPI) archaeological testing on the project site, review of historical topographic and aerial imagery, and a pedestrian survey. However, the absence of substantial surface prehistoric or historic-period archeological remains within the project vicinity and the existing level of disturbance does not preclude the possibility of subsurface resources. Though the circumstances would present a low possibility, the following mitigation measure would reduce impacts in the unanticipated discovery of cultural resources during construction. With the implementation of **Mitigation Measure MM CUL-1**, impacts would be less than significant.

The City has notified California Native American tribes who have formally requested notification on CEQA projects under Assembly Bill 52. These notification letters were distributed to identified Native American Tribes on December 20, 2024, with one response at this time from the California Valley Miwok Tribe received on December 27, 2024. The California Valley Miwok Tribe has no comments or concerns and did not request formal consultation. These letters are on file at the City of Lodi Community Development Department.

Impacts on tribal cultural resources are considered less than significant with mitigation.

Cumulative Impacts

The combination of the proposed project as well as past, present, and reasonably foreseeable projects in the local area would be required to comply with all applicable State, federal, and County and local regulations concerning preservation, salvage, or handling of cultural and paleontological resources, including compliance with required mitigation. Similar to the proposed project, these projects also would be required to implement and conform to mitigation measures, which would be likely to reduce impacts to less than significant. Although in the process of development, some known or unknown resources may be lost, it is not anticipated that these impacts would be cumulatively considerable. In addition, implementation of Mitigation Measure **MM CUL-1**, would reduce project-specific impacts to a less than significant level. Therefore, the project's contribution to cumulative impacts would be less than significant.

5.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment 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 project's projected demand in addition to the provider's 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**	

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

And,

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 project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. The proposed project would connect to the City's existing water and sanitary sewer system. As part of this connection, the proposed project would not be required to increase the size of existing water and sanitary sewer lines in order to serve the proposed project. The proposed project would be consistent with planned growth in the General Plan, in that it would be consistent with the type of development planned for this area in the General Plan. The City has sufficient capacity in its domestic water and sanitary sewer systems to accommodate development within the proposed project. Thus, the project would not require the extension of sewer mains, water lines, storm water drainage lines, or natural gas pipelines to the project site, as these lines are already available on East Kettleman Lane. Only connecting lines from the project site to these existing facilities would be required. Electrical and telecommunication lines are available in the project vicinity and can be extended to the project site as necessary. The project does not propose the relocation of any existing utility lines or facilities. Project impacts would be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. In 2021, the City adopted the City of Lodi 2020 Urban Water Management Plan (UWMP), as required by the Urban Water Management Planning Act of 1983. The UWMP serves as a long-term planning document for sustainable water supply, and includes a description of water sources, historical and projected water use, and a comparison of water supply and demand during normal and dry years. The UWMP has identified regional water demand in normal, single dry, and multiple dry years in five-year increments. Water demand projections were based on buildout of the City's General Plan. The UWMP indicates that the City would have up to approximately 21,000 acre-feet per year (AFY) for 2025 and 21,000 AFY for 2030 in a normal year (City of Lodi, 2021). *Table 5.19-1: Water Supply and Demand – Normal Year (AFY)* and *Table 5.19-2: Water Supply and Demand – Single Dry Year (AFY)* show the projected water supply and demand totals during a normal year and during a single dry year, respectively. *Table 5.19-3: Water Supply and Demand – Multiple Dry Years (AFY)* shows the projected supply and demand totals under multiple dry year conditions for the first, second, third, fourth, and fifth years.

Table 5.19-1: Water Supply and Demand – Normal Year (AFY)

	2025	2030	2035	2040	2045
Supply Totals	21,000	21,000	21,000	21,000	21,000
Demand Totals	14,663	15,512	16,410	17,360	18,365
Difference	6,337	5,488	4,590	3,640	2,635

NOTES:
(-) indicates a negative value
SOURCE: City of Lodi 2020 Urban Water Management Plan, August 2021

Table 5.19-2: Water Supply and Demand – Single Dry Year (AFY)

	2025	2030	2035	2040	2045
Supply Totals	18,000	18,000	18,000	18,000	18,000
Demand Totals	1,4663	15,512	16,410	17,360	18,365
Difference	3,337	2,488	1,590	640	(-) 365

NOTES:
(-) indicates a negative value
SOURCE: City of Lodi 2020 Urban Water Management Plan, August 2021

Table 5.19-3: Water Supply and Demand – Multiple Dry Years (AFY)

		2025	2030	2035	2040	2045
1st Year	Supply Totals	18,000	18,000	18,000	18,000	18,000
	Demand Totals	14,463	15,512	16,410	17,360	18,365
	Difference	3,337	2,488	1,590	640	(-)365
2nd Year	Supply Totals	17,250	17,250	17,250	17,250	17,250
	Demand Totals	14,296	15,124	15,999	16,926	17,906
	Difference	2,954	2,126	1,251	324	(-)656
3rd Year	Supply Totals	16,500	16,500	16,500	16,500	16,500
	Demand Totals	13,929	14,736	15,589	16,492	17,447
	Difference	2,571	1,764	911	8	(-)947
4th Year	Supply Totals	15,750	15,750	15,750	15,750	15,750
	Demand Totals	13,563	14,348	15,179	16,058	16,987

	Difference	2,187	1,402	571	(-)308	(-)1,237
5th Year	Supply Totals	15,000	15,000	15,000	15,000	15,000
	Demand Totals	13,196	13,960	14,769	15,624	16,528
	Difference	1,804	1,040	231	-624	-1,528

NOTES:
(-) indicates a negative value
SOURCE: City of Lodi 2020 Urban Water Management Plan, August 2021

Based on the above, the City of Lodi anticipates a water supply shortage by 2045 in one-dry year. However, as described in the UWMP, two water supply options were identified to address future water supply shortfalls:

1. Agricultural Reuse Project: The City would construct a non potable water transmission would supply irrigation demands to reduce demand on groundwater supplies during peak irrigation seasons.

2. Non-potable Water System Serving Urban Customers: The City could construct a non-potable water distribution to supply raw water from the Woodbridge Irrigation District (WID) to urban customers for irrigation purposes to reduce demand on groundwater supplies.

Inclusion of the above water supply options as well as implementation of the City's Water Shortage Contingency Plan would ensure that adequate water supplies are available to serve buildout of the General plan. Therefore, projected water supplies would be sufficient to satisfy water demands associated with the proposed project while still meeting the current and projected water demands of existing customers within the service area. Impacts would be less than significant.

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?

And,

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. The City of Lodi, in partnership with WM, provides solid waste hauling service for the City of Lodi and would serve the proposed project. The nearest landfill to the project site is approximately 8.4 miles to the southeast of the project site. Solid waste is collected by the City and deposited at the North County Landfill and Recycling Center. According to Cal Recycle, the Forward Landfill has a closure date of 2053 and is currently operating at 14% capacity. The proposed project would be consistent with planned growth in the Manteca 2023 General Plan, in that it would be consistent with the type of development planned for this area in the Manteca 2023 General Plan. Therefore, the proposed project's waste generation has already been addressed in the Lodi 2010 General Plan EIR. Therefore, the capacity identified in the Lodi 2010 General Plan EIR, is more than sufficient to serve the proposed project. Because the Forward Landfill has adequate capacity for the construction and operation of the Proposed project would have a less than significant impact.

The proposed project would not interfere with regulations related to solid waste or generate waste in excess of the capacity of local infrastructure. The proposed project would have a less than significant impact in this regard.

Cumulative Impacts

Utilities are generally provided or delivered on a local level but often originate from sources outside of the City as part of a regional distribution system. Similar to the project, other projects within the City would be required to adhere to the Standard Conditions of Approval related to water efficiency, utilities services and plans, and drainage. As shown above a cumulative analysis of water supply and demand was identified for multiple water years. With the inclusion of the additional water supply options and the City's Water Shortage Contingency Plan. Additionally, the proposed project would connect to existing stormwater facilities. Furthermore, the proposed project would be consistent with the General Plan. Therefore, implementation of the project would not result in a cumulatively considerable contribution to impacts on water supply and wastewater, stormwater, or solid waste generation.

The coordination process associated with the preparation of development and infrastructure plans is intended to ensure that adequate resources are available to serve both individual projects and cumulative demand for resources and infrastructure as a result of cumulative growth and development in the area. Individual projects are subject to review for utility capacity to avoid unanticipated interruptions in service or inadequate supplies. Other planned projects are subject to connection and service fees to assist in facility expansion and service improvements triggered by an increase in demand. The proposed project would not result in incremental impacts to utilities or service systems, that taken in sum with past, present, and reasonably foreseeable projects, would not result in significant cumulative utility impacts.

5.20 WILDFIRE

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
WILDFIRE. 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**	
b) 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**	

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The project site is not located in or near a LRA or SRA, nor is the site designated as a Very High Fire Severity Zone (VHFHSZ). Additionally, the project would comply with all local regulations related to emergency access/evacuation. As such, a less than significant impact would occur in this regard.

b) 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?

Less Than Significant Impact. Refer to the previous response a).

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?

Less Than Significant Impact. The project includes standard infrastructure, including roadways, utilities, and fire suppression systems.

The proposed project will utilize existing utility stubs onsite, street lighting along East Kettleman Lane, and curbs and gutters already in place along the northern frontage of the parcel. All of this infrastructure is designed to reduce the risk of fire. Following compliance with the established local and state regulatory framework discussed above, the project would not expose people or structures to a significant risk involving wildland fires and impacts would be less than significant in this regard.

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?

Less Than Significant Impact. The project site is not in a VHFHSZ nor located near steep slopes or hillsides. The project would implement efficient landscape maintenance practices and design measures to decrease the release of stormwater running off the site; therefore, the proposed project site would not expose people to downstream flooding or landslides as a result of runoff. Impacts would be less than significant.

Cumulative Impacts

The proposed project area is not subject to natural wildfire areas. Consequently, project implementation would not create a significant cumulative impact that would exacerbate wildfires. Impacts would be less than significant.

5.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
21. MANDATORY FINDINGS OF SIGNIFICANCE. Does the project:				
a) 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**	

a) 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?

Less Than Significant with Mitigation Incorporated. This Initial Study includes an analysis of the project impacts associated with aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, tribal cultural resources, utilities and service systems, and wildfire. 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. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

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)?

Less Than Significant Impact. Per the criteria for evaluating environmental impacts in this Initial Study, the potential for adverse cumulative effects were considered in the response to each question in sections 1 through 21 of this checklist. In addition to project specific impacts, this evaluation considered the project's potential for incremental effects that are cumulatively considerable. As a result of this initial study, no cumulative effects associated with the proposed project have been identified. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

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

Less Than Significant Impact. Potential adverse project effects on human beings were discussed in Section 5.3, Air Quality; Section 5.7, Geology and Soils (seismic hazards); Section 5.9, Hazards and Hazardous Materials; Section 5.10, Hydrology and Water Quality (flooding); Section 5.17, Transportation (traffic hazards); and Section 5.20, Wildfire. For most aspects of these issues, no potential adverse effects on human beings were identified. Potential adverse effects that were identified would be reduced to levels considered less than significant through compliance with applicable laws, regulations, and City ordinances and standards, along with mitigation measures where necessary. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

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