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Draft Subsequent Environmental Impact Report (SEIR)

SCH No. 2024020668

FOR THE

Lodi 2025 General Plan Update

City of Lodi

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Acronyms and Abbreviations

Acronym/Abbreviation	Meaning
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ACP	Agricultural Conservation Program
ALUCP	Airport Land Use Compatibility Plan
CCD	Census County Divisions
CCT	Central California Traction Line
CES	CalEnviroScreen
CO	Carbon monoxide
dB	Decibel
dBA	A-Weighted Decibel
DOF	California Department of Finance
DPM	Diesel particulate matter
EIR	environmental impact report
HAA	Housing Accountability Act
HCD	California Department of Housing and Community Development
LAFCO	Local Agency Formation Commission
LOS	level of service
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_x	nitrogen oxides
NO_2	nitrogen dioxide
NOP	Notice of Preparation
Pb	lead
$\text{PM}_{2.5}$	fine inhalable particulate matter
PM_{10}	coarse inhalable particulate matter
Ppb	parts per billion
Ppm	parts per million
RHNA	Regional Housing Needs Allocation
RTP	Regional Transportation Plan
SCS	Sustainable Communities Strategy
SJCOG	San Joaquin Council of Governments

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Acronym/Abbreviation	Meaning
SJMSCP	San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
SJVAPCD	San Joaquin Valley Unified Air Pollution Control District
SJVAB	San Joaquin Valley Air Basin
SO ₂	sulfur dioxide
SOI	Sphere of Influence
TAC	Toxic air contaminant
VMT	vehicle miles traveled
VOC	volatile organic compound

1. Executive Summary

1.1 INTRODUCTION

This Draft Subsequent Environmental Impact Report (SEIR) addresses the environmental effects associated with the implementation of the proposed City of Lodi 2025 General Plan Update (proposed project). The California Environmental Quality Act (CEQA) requires that local government agencies consider the environmental consequences before acting on projects over which they have discretionary approval authority. An environmental impact report (EIR) analyzes potential environmental consequences to inform the public and support informed decisions by local and State governmental agency decision makers.

This SEIR has been prepared pursuant to the requirements of CEQA and the City of Lodi's CEQA procedures. The City of Lodi, as the lead agency, has reviewed and revised all submitted drafts, technical studies, and reports as necessary to reflect its own independent judgment, including reliance on City technical personnel from other departments and review of all technical subconsultant reports.

Data for this SEIR derive from on-site field observations; discussions with affected agencies; analysis of adopted plans and policies; review of available studies, reports, data and similar literature; and specialized environmental assessments (air quality, energy, greenhouse gas emissions, noise, parks and recreation, population and housing, public services, transportation, and utilities and service systems).

1.2 ENVIRONMENTAL PROCEDURES

This SEIR has been prepared pursuant to CEQA to assess the environmental effects associated with implementation of the proposed project, as well as anticipated future discretionary actions and approvals. CEQA establishes six main objectives for an EIR:

1. Disclose to decision makers and the public the significant environmental effects of proposed activities.
2. Identify ways to avoid or reduce environmental damage.
3. Prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
4. Disclose to the public reasons for agency approval of projects with significant environmental effects.
5. Foster interagency coordination in the review of projects.
6. Enhance public participation in the planning process.

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An EIR is the most comprehensive form of environmental documentation in CEQA and the CEQA Guidelines; it is intended to provide an objective, factually supported analysis and full disclosure of the environmental consequences of a proposed project with the potential to result in significant, adverse environmental impacts.

An EIR is one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Before approving a proposed project, the lead agency must consider the information in the EIR; determine whether the EIR was prepared in accordance with CEQA and the CEQA Guidelines; determine that it reflects the independent judgment of the lead agency; adopt findings concerning the project's significant environmental impacts and alternatives; and adopt a statement of overriding considerations if significant impacts cannot be avoided.

1.2.1 SEIR FORMAT

Chapter 1. Executive Summary: Summarizes the background and description of the proposed project, the format of this SEIR, project alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and mitigation measures identified for the proposed project.

Chapter 2. Introduction: Describes the purpose of this SEIR, background on the proposed project, overview of the Notice of Preparation (NOP) process, the use of incorporation by reference, and Final SEIR certification.

Chapter 3. Project Description: Contains a detailed description of the proposed project, including its objectives, its area and location, approvals anticipated to be required as part of the proposed project, necessary environmental clearances, and the intended uses of this SEIR.

Chapter 4. Environmental Analysis: Each environmental topic is analyzed in a separate section that discusses: the standards used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the project; the existing environmental setting; the potential adverse and beneficial effects of the project; the level of impact significance before mitigation; mitigation measures for the proposed project; the level of significance after mitigation is incorporated; and the potential cumulative impacts of the proposed project and other existing, approved, and proposed development in the area.

Chapter 5. Significant Unavoidable Adverse Impacts: Describes the significant unavoidable adverse impacts of the proposed project.

Chapter 6. Alternatives to the Proposed Project: Describes the alternatives and compares their impacts to the impacts of the proposed project.

Chapter 7. CEQA-Mandated Sections. This chapter addresses the CEQA-mandated requirements for analyzing the environmental impacts of the proposed project, as outlined in California Code of Regulations (CCR) Title 14, Section 15126. It covers several key areas such as Significant Environmental Effects, Unavoidable Impacts, Irreversible Environmental Changes, and Growth-Inducing Impacts.

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Chapter 8. Impacts Found Not to Be Significant. Briefly describes the potential impacts of the project that were determined not to be significant by the NOP and were therefore not discussed in detail in this SEIR.

Chapter 9. Organizations and Persons Consulted: Lists the people and organizations that were contacted during the preparation of this SEIR.

Appendices: The appendices for this document comprise these supporting documents:

- Appendix A, Notice of Preparation (NOP) Comment Letters
- Appendix B, Air Quality and Greenhouse Gas Emissions Data
- Appendix C, Water Infrastructure and Supply Memorandum

1.2.2 TYPE AND PURPOSE OF THIS SEIR

This Draft SEIR fulfills the requirements for a Program EIR for the 45 Lodi 2025 General Plan Update. Although the legally required contents of a Program EIR are the same as for a Project EIR, Program EIRs are typically more conceptual than Project EIRs, with a more general discussion of impacts, alternatives, and mitigation measures. According to Section 15168 of the CEQA Guidelines, a Program EIR may be prepared on a series of actions that can be characterized as one large project. Use of a Program EIR gives the lead agency an opportunity to consider broad policy alternatives and program-wide mitigation measures, as well as greater flexibility to address project-specific and cumulative environmental impacts on a comprehensive scale.

Agencies prepare Program EIRs for programs or a series of related actions that are linked geographically; logical parts of a chain of contemplated events, rules, regulations, or plans that govern the conduct of a continuing program; or individual activities carried out under the same authority and having generally similar environmental effects that can be mitigated in similar ways.

Once a Program EIR has been prepared, subsequent activities in the program must be evaluated to determine whether an additional CEQA document is necessary. However, if the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities may be within the Program EIR's scope, and additional environmental documents may not be required (CEQA Guidelines Section 15168[c]). When a lead agency relies on a Program EIR for a subsequent activity, it must incorporate feasible mitigation measures and alternatives from the Program EIR into the subsequent activities (CEQA Guidelines Section 15168[c][3]). If a subsequent activity would have effects outside the scope of the Program EIR, the lead agency must prepare a new Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or an EIR. Even in this case, the Program EIR still serves a valuable purpose as the first-tier environmental analysis. The CEQA Guidelines encourage the use of Program EIRs, citing five advantages (CEQA Guidelines Section 15168[h]):

- Provide a more exhaustive consideration of impacts and alternatives than would be practical in an individual EIR;
- Focus on cumulative impacts that might be slighted in a case-by-case analysis;
- Avoid continual reconsideration of recurring policy issues;

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- Consider broad policy alternatives and programmatic mitigation measures at an early stage when the agency has greater flexibility to deal with them;
- Reduce paperwork by encouraging the reuse of data (through tiering).

1.3 PROJECT LOCATION

Lodi is an incorporated city in San Joaquin County. The City is generally between the City of Stockton to the south and the City of Galt to the north, and is immediately surrounded by unincorporated San Joaquin County lands. State Route (SR-) 99 passes through the eastern edge of the city and Lodi is served by the Union Pacific, Burlington Northern Santa Fe, and Central California Traction rail lines. Regional access to the city is also provided by SR-12 and Interstate 5. Figure 3-1, *Regional and Local Vicinity Map*, in SEIR Chapter 3, *Project Description*, shows the city's location and its regional context.

The City of Lodi's incorporated boundaries include 7,550 acres of the City and 2,284 acres in the City's Sphere of Influence (SOI). Figure 3-2, *Lodi Planning Area*, outlines the City's SOI. Figure 3-3, *Lodi Existing Land Use Designations*, shows the existing General Plan land use designations for the City of Lodi.

1.4 PROJECT SUMMARY

The City of Lodi 452025 General Plan Update is an updated version of the City's adopted General Plan, which guides decision makers on resource allocation and development in the city. The plan outlines the extent and types of development needed to achieve the community's physical, economic, social, and environmental goals. The project aims to identify long-term goals; provide a basis for decision making; provide citizens with input on their community's direction; and inform citizens, developers, decision makers, and San Joaquin County of development expectations. In alignment with the state's environmental goals, the Lodi 2025 General Plan Update will integrate the requirements of SB 743, which mandates the use of Vehicle Miles Traveled (VMT) as the primary metric for evaluating transportation impacts, replacing the previous Level of Service (LOS) standard. This shift supports the reduction of greenhouse gas emissions and promotes alternative transportation modes such as walking, biking, and public transit.

The 452025 General Plan Update aims to address four main goals: reconciling discrepancies between the General Plan Land Use Map and existing urban development sites, designating additional housing sites to meet Housing Element obligations, supporting the reuse and redevelopment of Downtown properties, and delineating the recently expanded 2022 Sphere of Influence. These amendments will be incorporated into the City's General Plan Land Use Map, and changes to land use designations or density or intensity of uses are proposed. Additionally, the transportation section will be updated to incorporate VMT analysis for new developments, including strategies for reducing VMT and aligning transportation planning with sustainability goals. The element includes policy modifications, which are listed in Chapter 3, *Project Description*, and Section 4.9, *Transportation* of this SEIR. The proposed policies are currently under legal review for concurrence and may be subject to changes.

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1.5 SUMMARY OF PROJECT ALTERNATIVES

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to a project that could feasibly attain the basic objectives of a project and avoid or lessen the environmental effects of a project. While the City considered various options and recommendations during the scoping process, the final selection of alternatives was based on the CEQA Guidelines Section 15126.6, which states that the selection of alternatives should be limited to ones that would avoid or substantially lessen any of the significant effects of the project.

The following three alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the proposed project but may avoid or substantially lessen any of the significant effects of the project. Project alternatives are assessed in further detail in Chapter 6, *Alternatives to the Proposed Project*.

- Alternative 1: No Project (Approved Project) Alternative
- Alternative 2: No Annexation Alternative
- Alternative 3: Increased Density Alternative

1.5.1 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

1.5.1.1 ALTERNATIVE 1: NO PROJECT (APPROVED PROJECT) ALTERNATIVE

The No Project (Approved Project) Alternative is required to discuss the existing conditions at the time the NOP is published and evaluate what would reasonably be expected to occur in the foreseeable future if the proposed project is not approved (CEQA Guidelines, Section 15126.6[e]). According to CEQA, this alternative is also based on current plans and consistent with available infrastructure and community services.

Therefore, the No Project (Approved Project) Alternative assumes that the proposed project would not be adopted, and the development intensity assumed in the existing General Plan would be followed. Additionally, this No Project (Approved Project) Alternative would prevent the adoption and implementation of the new policies, strategies, and actions under the proposed project that would reduce impacts associated with development in the city. In addition, policies and actions in the proposed Land Use and Transportation Elements incorporate numerous vehicle miles traveled (VMT) and greenhouse gas (GHG)-reducing measures that would likely lead to increased use of alternative modes of transportation and other types of reductions in VMT and GHG emissions.

1.5.1.1 ALTERNATIVE 2: NO ANNEXATION ALTERNATIVE

This alternative would minimize the impacts on agriculture associated with annexation and development. This alternative evaluates development solely in city limits as part of the proposed project. This alternative would limit the expansion of services, limit the conversion of agricultural land, and reduce VMT. Additionally, this alternative would still include revisions to the existing General Plan Elements and the introduction of new policies. Since no annexation would take place, this alternative would enhance the development

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potential and land value of infill properties already in the city, thereby increasing pressure to build at higher densities in the city limits.

1.5.1.2 ALTERNATIVE 3: INCREASED DENSITY ALTERNATIVE

In the Increased Density Alternative, the City would establish a policy that on average new development will need to increase the density range established in the proposed project. One intent of this alternative is to encourage an efficient use of existing land, thereby reducing the need to annex large areas of land. Under this alternative, the need for annexation would be reduced by requiring more development on the same amount of land (e.g., higher-density, larger and taller buildings).

1.6 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the proposed project, the major issues to be resolved include decisions by the lead agency as to:

1. Whether this SEIR adequately describes the environmental impacts of the proposed project.
2. Whether the benefits of the proposed project override those environmental impacts which cannot be feasibly avoided or mitigated to a level of insignificance.
3. Whether the proposed land use changes are compatible with the character of the existing area.
4. Whether the identified goals, policies, or mitigation measures should be adopted or modified.
5. Whether there are other mitigation measures that should be applied to the proposed project besides the mitigation measures identified in the SEIR.
6. Whether there are any alternatives to the proposed project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic proposed project objectives.

1.7 AREAS OF CONTROVERSY

In accordance with Section 15123(b)(2) of the CEQA Guidelines, the EIR summary must identify areas of controversy known to the lead agency, including issues raised by agencies and the public. Prior to preparation of the SEIR, the NOP was distributed for comment from February 16, 2024, to March 15, 2024. A public scoping meeting was held at the City of Lodi on February 22, 2024. A total of four agencies/interested parties responded to the NOP. NOP comment letters received during the review period are summarized in Chapter 2, *Introduction*, in Table 2-1, *NOP and Scoping Meeting Comment Summary*, and can be found in Appendix A.

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1.8 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Table 1-1, *Summary of Impacts and Mitigation Measures*, summarizes the conclusions of the environmental analysis contained in this SEIR. Impacts are identified as potentially significant, less than significant, or no impact, and mitigation measures are identified for all significant impacts. The level of significance after implementation of the mitigation measures is also presented.

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TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
AIR QUALITY			
Impact AIR-1: Implementation of the proposed project would not conflict with or obstruct implementation of the SJVAPCD air quality plans.	Less Than Significant	No Mitigation Measures are required.	Less Than Significant
Impact AIR-2: Implementation of the proposed project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is in nonattainment under applicable federal or State ambient air quality standard.	Potentially Significant	<p>Mitigation Measure AIR-2a: To reduce long-term increases in air pollutants during the operation phase for discretionary development projects that are subject to CEQA, which exceed the SJVAPCD's Small Projects Analysis Level (SPAL) and Ambient Air Quality Analysis (AAQA) screening criteria, the City shall adopt the following New Program to support Policy C-P52 and C-P57 be implemented as part of the project approval process:</p> <ul style="list-style-type: none"> ■ New Program: Require projects that exceed the SJVAPCD's SPAL and AAQA screening criteria to evaluate project-specific operation emissions in conformance with SJVAPCD's GAMAQI, and if operation-related air pollutants exceed the SJVAPCD-adopted thresholds of significance, require the project applicants to mitigate the impact to an acceptable level. <p>Mitigation Measure AIR-2b: Prior to issuance of any construction permits for development projects subject to California Environmental Quality Act (CEQA) review (i.e., non-exempt projects), development project applicants shall prepare and submit to the City of Lodi a technical assessment evaluating potential project construction-related air quality impacts. The evaluation shall be prepared in conformance with San Joaquin Valley Unified Air Pollution Control District (SJVAPCD) methodology in assessing air quality impacts. The prepared evaluation for projects that meet the SJVAPCD Small Projects Analysis Level (SPAL) screening criteria shall at minimum identify the primary sources of construction emissions and include a discussion of the applicable SJVAPCD rules and regulations and SPAL screening criteria to support a less-than-significant conclusion.</p> <p>For projects that do not meet the SPAL screening criteria, project-related construction emissions shall be quantified. If construction-related criteria air pollutants are determined to have the potential to exceed the SJVAPCD adopted thresholds of significance, as identified in the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI), the City of Lodi shall require that applicants for new</p>	Significant and Unavoidable

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TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
		<p>development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities to below these thresholds. These identified measures shall be incorporated into appropriate construction documents (e.g., construction management plans) submitted to the City of Lodi. Mitigation measures to reduce construction-related emissions could include, but are not limited to:</p> <ol style="list-style-type: none"> 1. Using construction equipment rated by the United States Environmental Protection Agency as having Tier 4 interim (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower. A list of construction equipment by type and model year shall be maintained by the construction contractor on-site, which shall be available for City review upon request. 2. Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards. 3. Use of alternative-fueled or catalyst-equipped diesel construction equipment, if available and feasible. 4. Clearly posted signs that require operators of trucks and construction equipment to minimize idling time (e.g., five minute maximum). 5. Preparation and implementation of a fugitive dust control plan that may include the following measures: 6. Disturbed areas (including storage piles) that are not being actively utilized for construction purposes shall be effectively stabilized using water, chemical stabilizer/suppressant, or covered with a tarp or other suitable cover (e.g., revegetated). 7. On-site unpaved roads and offsite unpaved access roads shall be effectively stabilized using water or chemical stabilizer/suppressant. 8. Land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled utilizing application of water or by presoaking. 	

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TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
		<p>9. Material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained when materials are transported offsite.</p> <p>10. Operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.)</p> <p>11. Following the addition of materials to or the removal of materials from the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.</p> <p>12. Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.</p> <p>13. Any site with 150 or more vehicle trips per day shall prevent carryout and trackout.</p> <p>14. Limit traffic speeds on unpaved roads to 15 miles per hour.</p> <p>15. Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than 1 percent.</p> <p>16. Install wheel washers for all exiting trucks or wash off all trucks and equipment leaving the project area.</p> <p>17. Adhere to Regulation VIII's 20 percent opacity limitation, as applicable.</p> <p>18. Enter into a Voluntary Emissions Reduction Agreement (VERA) with the SJVAPCD. The VERA shall identify the amount of emissions to be reduced, in addition to the amount of funds to be paid by the project applicant to the SJVAPCD to implement emission reduction projects required for the project.</p>	

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
		<p>Mitigation Measure AIR-2c: To reduce temporary increases in criteria air pollutant emissions during the construction phase for discretionary development projects that are subject to CEQA, which exceed the SJVAPCD's Small Projects Analysis Level (SPAL) and Ambient Air Quality Analysis (AAQA) screening criteria, the City shall adopt the following New Program to support Policy C-P48, C-P49, C-P50 and C-P57 to be implemented as part of the project approval process:</p> <ul style="list-style-type: none"> ■ New Program: Require projects that exceed the SJVAPCD's screening sizes as described in the District's GAMAQI to evaluate project-specific construction emissions in conformance with the SJVAPCD's GAMAQI methodology and if construction-related criteria air pollutants exceed the SJVAPCD's thresholds of significance, require the project applicant to mitigate the impacts to an acceptable level. 	
Impact AIR-3: The proposed project would expose sensitive receptors to substantial pollutant concentrations.	Potentially Significant	<p>Implement Mitigation Measure AIR-2b and AIR-2c.</p> <p>Mitigation Measure AIR-3a: To ensure sensitive receptors are not exposed to toxic air contaminant emissions during the operation phase for discretionary development projects that are subject to CEQA which exceed the screening sizes in the SJVAPCD GAMAQI, the City shall adopt the following New Program to support Policy C-P59 be implemented as part of the project approval process:</p> <ul style="list-style-type: none"> ■ New Program: Require applicants for industrial or warehousing land uses or commercial land uses that would generate substantial diesel truck travel (i.e., 100 diesel trucks per day or 40 or more trucks with diesel-powered transport refrigeration units per day) to contact SJVAPCD to determine the appropriate level of operational health risk assessment (HRA) required. If required, the operational HRA shall be prepared in accordance with the Office of Environmental Health Hazard Assessment (OEHHA) and SJVAPCD requirements and mitigated to an acceptable level. 	Significant and Unavoidable
Impact AIR-4: The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	Less Than Significant	No Mitigation Measures are required.	Less Than Significant

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
ENERGY			
Impact ENE-1: The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.	Less Than Significant	No Mitigation Measures are required.	Less Than Significant
Impact ENE-2: The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.	Less Than Significant	No Mitigation Measures are required.	Less Than Significant
GREENHOUSE GAS EMISSIONS			
Impact GHG-1: The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.	Potentially Significant	<p>Mitigation Measure GHG-1: The City of Lodi shall prepare a Climate Action Plan (CAP) update to achieve the GHG reduction targets of Senate Bill (SB) 32 for year 2030 and chart trajectory to achieve the long-term GHG reduction goal set by Assembly Bill (AB) 1279. The CAP update shall be completed within 18 months of certification of the General Plan Update EIR and be prepared in accordance with CEQA Guidelines Section 15183.5. The CAP update shall be updated every five years to ensure the City is monitoring the plan's progress toward achieving the City's GHG reduction target and to require amendment if the plan is not achieving specified level. The update shall consider a trajectory consistent with the GHG emissions reduction goal established under SB 32 for year 2030, AB 1279 for year 2045, and the latest applicable statewide legislative GHG emission reduction that may be in effect at the time of the CAP update. The CAP update shall include the following:</p> <ul style="list-style-type: none"> GHG inventories of existing and forecast year GHG levels. Tools and strategies for reducing GHG emissions to achieve the GHG reduction goals of SB 32 for year 2030. Tools and strategies for reducing GHG emissions to ensure a trajectory with the long-term GHG reduction goal and carbon neutrality for year 2045 of AB 1279. Plan implementation guidance that includes, at minimum, the following components consistent with the CAP update: 	Significant and Unavoidable

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
		<ul style="list-style-type: none"> Administration and Staffing Finance and Budgeting Timelines for Measure Implementation Community Outreach and Education Monitoring, Reporting, and Adaptive Management Tracking Tools 	
Impact GHG-2: The proposed project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.	Less Than Significant	No Mitigation Measures are required.	Less Than Significant
LAND USE AND PLANNING			
Impact LU-1: The proposed project would not divide an established community.	Less Than Significant	No Mitigation Measures are required.	Less Than Significant
Impact LU-2: Project implementation would not conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect.	Less Than Significant	No Mitigation Measures are required.	Less Than Significant
Impact LU-3: The proposed project would convert acres of Important Farmland to nonagricultural use.	Potentially Significant	The criterion for mitigation under CEQA is feasible mitigation that lessens a project's impact. Agricultural conservation easements are a possible mitigation measure under CEQA. Programs that establish agricultural conservation easements and in-lieu fees for mitigation banking are most effective when determined concurrently with project approval. However, the effectiveness and extent to which future projects would opt-in to agricultural conservation easements as mitigation measures cannot be determined in this analysis.	Significant and Unavoidable
Impact LU-4: The proposed project would involve other changes in the existing environment which, due to their location or nature, would result in the conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.	Potentially Significant	See discussion under Impact LU-3	Significant and Unavoidable
Impact LU-5: Development of the proposed project would impact identified historic resources.	Potentially Significant	Mitigation Measure LU-1: Prior to any demolition work or significant alterations to any building or structure within Lodi's Downtown that is 50 years old or older, the City shall ensure that a qualified architectural historian who meets the Secretary of the Interior's Professional Qualification Standards evaluate the building or structure for eligibility for listing on the National Register, California	Significant and Unavoidable

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
		<p>Register, and as a Lodi Historic Landmark. This evaluation will specifically consider the historical significance of structures within the context of Lodi's downtown development.</p> <p>Mitigation Measure LU-2: Prior to any demolition work or significant alterations initiated at known historical resource or a resource identified via implementation of Mitigation Measure C-1, the City shall ensure that a qualified architectural historian who meets the Secretary of the Interior's Professional Qualification Standards identifies character-defining features of each historical resource. According to guidance from the National Park Service, a historical resource "must retain... the essential physical features [i.e., character-defining features] that enable it to convey its historic identity. The essential physical features are those features that define both why a property is significant...and when it was significant" (National Park Service 1997). The identification of character-defining features is necessary for complete documentation of each historical resource as well as appropriate public interpretation and salvage plans. Demolition permits maybe issued under "emergency" work in the event of a major manmade or natural disaster.</p> <p>Mitigation Measure LU-3: Prior to any demolition work or significant alterations initiated of a known historical resource or a resource identified via implementation of Mitigation Measure C-1, the City shall ensure that a qualified architectural historian who meets the Secretary of the Interior's Professional Qualification Standards thoroughly documents each building and associated landscaping and setting in Lodi's Downtown. Documentation shall include still photography and a written documentary record of the building to the National Park Service's standards of the Historic American Buildings Survey (HABS) or the Historic American Engineering Record (HAER), including accurate scaled mapping and architectural descriptions. If available, scaled architectural plans will also be included. Photos include large-format (4"x5") black-and-white negatives and 8"x10" enlargements. Digital photography may be substituted for large-format negative photography if archived locally. The record shall be accompanied by a report containing site-specific history and appropriate contextual information. This information shall be gathered through site-specific and comparative archival research and oral history collection as appropriate.</p>	

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
		Copies of the records shall be submitted to the Northwest Information Center at Sonoma State University. CEQA Guidelines Section 15064.5(b)(3) states that a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), shall be considered as mitigated to a level of less than significant. Therefore, if a structure in Lodi's Downtown is determined to be a historical resource under the project-by-project review described in Mitigation Measure C-1 a structure is determined to be a historical resource as defined by CEQA, the Secretary of the Interior's guidelines referenced above shall be followed for demolition, rehabilitation, and/or alternation projects.	
NOISE			
Impact NOI-1: The project would potentially result in 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 in other applicable local, state, or federal standards.	Potentially Significant	No feasible mitigation measures have been identified	Significant and Unavoidable
Impact NOI-2: The project would not result in generation of excessive groundborne vibration or groundborne noise levels.	Less than Significant	No Mitigation Measures are required.	Less than Significant
Impact NOI-3: 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 2 miles of a public airport or public use airport, the project would not expose people residing or working in the City's Plan to excessive noise levels.	Less than Significant	No Mitigation Measures are required.	Less than Significant
POPULATION AND HOUSING			
Impact POP-1: The proposed project would not result in substantial unplanned growth in comparison to the 2009 General Plan EIR.	Less than Significant	No Mitigation Measures are required.	Less than Significant

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
Impact POP-2: The proposed project would not displace substantial numbers of existing population or housing, necessitating the construction of replacement housing elsewhere.	Less than Significant	No Mitigation Measures are required.	Less than Significant
PUBLIC SERVICES			
Impact PS-1: The proposed project would increase the population and structures in the Lodi Fire Department service boundaries, thereby increasing the need for fire protection facilities and personnel.	Less than Significant	No Mitigation Measures are required.	Less than Significant
Impact PS-3: The proposed project would introduce new structures, residents, and workers into the Lodi Police Department service boundaries, thereby increasing the need for police protection facilities and personnel.	Less than Significant	No Mitigation Measures are required.	Less than Significant
Impact PS-5: Development under the proposed project would generate new students who would impact the school enrollment capacities of area schools and result in the need for new and/or expanded school facilities.	Less than Significant	No Mitigation Measures are required.	Less than Significant
Impact PS-7: The proposed project would not result in adverse physical impacts to libraries and would not require the construction of new library facilities.	Less than Significant	No Mitigation Measures are required.	Less than Significant
PARKS AND RECREATION			
Impact REC-1: The proposed project would increase the population and structures in the Lodi Fire Department service boundaries, thereby increasing the need for fire protection facilities and personnel.	Less than Significant	No Mitigation Measures are required.	Less than Significant
TRANSPORTATION			
Impact TRANS-1: The project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	Less than Significant	No Mitigation Measures are required.	Less than significant.
Impact TRANS-2: The project would conflict or inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	Potentially Significant	See Table 4.9-6, <i>Summary Of Potential Mitigation Measure For VMT Impacts</i> , in Section 4.9, Transportation.	Significant and unavoidable.

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TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
Impact TRANS-3: The project would not 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.	No Mitigation Measures are required.	Less than significant.
Impact TRANS-4: The project would not result in inadequate emergency access.	Less than significant.	No Mitigation Measures are required.	Less than significant.
UTILITIES AND SERVICE SYSTEMS			
Impact UTIL-1: As with the 2010 General Plan, the proposed project would not result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects.	Less than Significant	No Mitigation Measures are required.	Less than Significant
Impact UTIL-2: As with the 2010 General Plan, the proposed project would 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	No Mitigation Measures are required.	Less than Significant
Impact UTIL-4: As with the 2010 General Plan, the proposed project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.	Less than Significant	No Mitigation Measures are required.	Less than Significant
Impact UTIL-5: As with the 2010 General Plan, the proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple-dry years.	Less than Significant	No Mitigation Measures are required.	Less than Significant
Impact UTIL-7: As with the 2010 General Plan, the proposed project would not require or result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects.	Less than Significant	No Mitigation Measures are required.	Less than Significant

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
Impact UTIL-9: As with the 2010 General Plan, existing and/or proposed facilities would be able to accommodate solid waste generated from development under the 2024 General Plan and comply with related solid waste regulations.	Less than Significant	No Mitigation Measures are required.	Less than Significant
Impact UTIL-11: As with the 2010 General Plan, the proposed project would not require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	Less than Significant	No Mitigation Measures are required.	Less than Significant

2. Introduction

2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act (CEQA) requires that all state and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. As the proposed project results in few changes to the General Plan, the City determined that the existing General Plan Environmental Impact Report (EIR) (State Clearinghouse Number 2009022075) remains relevant. Pursuant to Section 15163 of the CEQA Guidelines, a supplemental EIR (SEIR) can be prepared:

Section 15163. SUPPLEMENT TO AN EIR

- (a) The Lead or Responsible Agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:
 - (1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and
 - (2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.
- (b) The supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised.

In this instance, only minor changes to the certified EIR are needed to address the impacts of the proposed project. The Draft SEIR is the public document designed to provide decision makers and the public with an analysis of the environmental effects of the proposed project, to indicate possible ways to reduce or avoid environmental damage, and to identify alternatives to the project. The Draft SEIR must also disclose significant environmental impacts that cannot be avoided; growth-inducing impacts; effects not found to be significant; and significant cumulative impacts of all past, present, and reasonably foreseeable future projects.

The lead agency means “the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment” (CEQA Section 21067). The City of Lodi has the principal responsibility for approval of the Lodi 2025 General Plan Update. For this reason, the City of Lodi is the CEQA lead agency for this project.

The intent of the Draft SEIR is to provide sufficient information on the potential environmental impacts of the proposed Lodi 2025 General Plan Update to allow the City of Lodi to make an informed decision regarding approval of the project. Specific discretionary actions to be reviewed by the City are described in Section 3.6, *Intended Uses of the SEIR*, in Chapter 3, *Project Description*.

INTRODUCTION

This Draft SEIR has been prepared in accordance with requirements of:

- CEQA of 1970, as amended (Public Resources Code, Sections 21000 et seq.)
- State Guidelines for the Implementation of the CEQA of 1970 (CEQA Guidelines), as amended (California Code of Regulations, Sections 15000 et seq.)

The overall purpose of this Draft SEIR is to inform the lead agency, responsible agencies, decision makers, and the general public about the environmental effects of the development and operation of the proposed Lodi 2025 General Plan Update. This Draft SEIR addresses effects that may be significant and adverse, evaluates alternatives to the project, and identifies mitigation measures to reduce or avoid adverse effects.

2.2 NOTICE OF PREPARATION

The City of Lodi issued a Notice of Preparation (NOP) on February 16, 2024. A scoping meeting was held on February 22, 2024, to receive oral comments, and the CEQA-mandated scoping period for this SEIR was held from February 16, 2024, to March 16, 2024, during which interested agencies and the public could submit comments about environmental concerns regarding the proposed project to be addressed in the SEIR. During this time, the City of Lodi received comment letters from a variety of State and local agencies and individuals (see Appendix A for all comment letters received). The comments received are summarized in Table 2-1, *NOP and Scoping Meeting Comment Summary*.

TABLE 2-1 NOP AND SCOPING MEETING COMMENT SUMMARY

Commenting Agency/Person	Date	Issue Addressed in Chapter/Section
Native American Heritage Commission (NAHC)	02/23/2024	Section 8.9, Tribal Cultural Resources

Comment Summary:

- The NAHC explains Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18), which both have tribal consultation requirements.
- The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project as early as possible to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources.
- AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.
- SB 18 applies to all California tribes and local governments that adopt or amend general plans or specific plans or create open space designations.
- NAHC recommends contacting the appropriate regional California Historical Research Information System (CHRIS) Center for an archaeological record search.
- NAHC recommends if an archaeological inventory survey is required then prepare a professional report detailing the findings and recommendations of the records search and field study.
- NAHC recommends contacting the NAHC for a Sacred Lands File search and a Native American Consultation List of appropriate tribes for consultation concerning the project site.

California Department of Transportation (Caltrans)	03/08/2024	Section 4.4, Land Use Section 4.5, Noise
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Comment Summary:

- The California Department of Transportation's Aeronautics Program aims to help cities, counties, and Airport Land Use Commissions understand and comply with the State Aeronautics Act under the California Public Utilities Code, Section 21001 et seq.

INTRODUCTION

Commenting Agency/Person	Date	Issue Addressed in Chapter/Section
<ul style="list-style-type: none"> The NOP and project sites may be within an Airport Influence Area (AIA), or safety zone of an Airport Land Use Compatibility Plan (ALUCP) formed by the ALUC under the Public Utilities Code (PUC), Section 21674. Density and intensity compatibility around airports should be considered due to the long-range nature of the plan. Increased density surrounding airports can lead to adverse impacts on communities and should be reviewed for health and safety consequences. Sensitive land uses like residential areas, schools, hospitals, and senior homes should also be considered. Before amending a general plan, the local agency must refer the proposed action to the airport land use commission. If the commission finds the action inconsistent, the agency is notified. Any development in defined safety zones must adhere to the Airport Land Use Compatibility Plan(s) adopted by the ALUC under the PUC, Section 21674. This ensures that any proposed action aligns with the commission's plan. Proposed projects may be subject to Title 14 of the Code of Federal Regulations (CFR) Part 77, Conical Surface standards, and Community Noise Equivalent Level (CNEL) contours noise compatibility, which may require noise-reduction measures. The PUC, Section 21659, prohibits structural hazards near airports. To comply with Federal Aviation Regulation, Part 77, a Notice of Proposed Construction or Alteration may be required. Additionally, any hazardous material sites compiled under Government Code Section 65962.5 should be reviewed per the Airport Unmanned Aircraft Control Program. The environmental impact analysis should be conducted on a regional scale to mitigate airport-related noise and safety hazards, with project-level agencies ensuring compliance with local ALUCP guidelines and restrictions for compatibility. The California Legislature declares that an ALUCP is crucial for minimizing noise nuisance and safety hazards around airports, promoting orderly development. The ALUCP assesses potential risks to aircraft, airspace personnel, and nearby residents. More information can be found in the California Airport Land Use Planning Handbook. 		
California Department of Fish and Wildlife (CDFW)	03/08/2024	Section 8.3, Biological Resources

Comment Summary:

- CDFW recommends that the City shall promote the preservation and restoration of contiguous areas of natural habitat throughout the city and support their integration with existing and future preserves.
- The CDFW mandates the City to preserve plant and wildlife habitats with sensitive resources, with a particular focus on areas contiguous with existing natural areas or wildlife movement corridors.
- The CDFW mandates the City to maintain the ecological integrity of creek corridors, canals, and drainage ditches that support riparian resources by preserving native plants and removing invasive non-native plants, and if not feasible, mitigating adverse impacts on riparian habitat through preservation or restoration in compliance with state and federal regulations.
- The City is obligated to safeguard and preserve wetland resources, if not feasible, by mitigating adverse impacts by state and federal regulations, and if applicable, special-status species. Additionally, permanent preservation of equivalent wetland habitat is required to prevent net loss of value or function.
- The City is obligated to safeguard native grasslands and vernal pools, which serve as habitat for rare and endangered species, and if necessary, to comply with state and federal regulations for foraging habitat protection.
- The City shall preserve and protect oak woodlands, heritage oaks, and/or significant stands of oak trees in the city that provide habitat for common native, and special-status wildlife species.
- The City shall preserve, protect, and avoid impacts to natural, undisturbed habitats that provide movement corridors for sensitive wildlife species. If corridors are adversely affected, damaged habitat shall be replaced with habitat of equivalent value or enhanced to enable the continued movement of species.
- The City must assess the impact of projects on sensitive plants and wildlife, and if potential habitats are present, habitat assessments are required. If suitable habitats are found, either protocol-level surveys or focused surveys using industry-recognized best practices will be conducted. The species' presence and suitable habitat will be assumed to occur within all identified habitat locations on the project site. Survey reports will be prepared and submitted to the City, CDFW, or the United States Fish and Wildlife Service (USFWS) for further consultation and development of avoidance and mitigation measures.
- CDFW states that the City should thoroughly assess future projects' potential direct, indirect, and cumulative impacts on biological resources. The city should define the significance threshold for each impact and outline criteria for determining its significance. The cumulative impacts of a project should also be analyzed to determine if it would result in a significant impact.
- The City will implement appropriate measures to minimize and mitigate the direct, indirect, and cumulative impacts of construction and long-term project operation and maintenance, following CEQA provisions, with mitigation proportional to the level of impacts.
- The City shall support active habitat restoration and enhancement to reduce the impact of climate change stressors and improve the overall resilience of habitat within existing parks and open space in the city

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Commenting Agency/Person	Date	Issue Addressed in Chapter/Section
<ul style="list-style-type: none"> The City will provide educational programs to residents and visitors about the region's natural resources, plants, and wildlife, and how to manage development to preserve native wildlife populations, in line with habitat protection requirements. The City is required to adhere to all laws concerning nesting birds and birds of prey. It must analyze potential activities that may harm nongame nesting birds and implement appropriate avoidance, minimization, and mitigation measures. These measures may include project phasing, monitoring noise, sound walls, and buffers. If a nest is within a project site, specific avoidance and minimization measures will be implemented. Preconstruction surveys may be required no more than 15 days before vegetation clearing or ground disturbance activities to avoid missed nesting instances. CEQA mandates the incorporation of EIRs and negative declarations into a database for future environmental determinations. Any special-status species or natural communities detected during project surveys should be reported to California Natural Diversity Database. The proposed project, which could impact fish and wildlife, necessitates an assessment of filing fees. These fees are payable upon the City of Lodi's Notice of Determination and help cover the environmental review cost by CDFW, ensuring the project's approval is operative, vested, and final. 		
Department of Toxic Substances Control (DTSC)	03/13/2024	Section 8.6, Hazards and Hazardous Materials

Comment Summary:

- The proposed project involves multiple mitigation and clean-up sites under DTSC's oversight, potentially impacting human health and the environment. This may limit permissible construction activities in the project area to prevent potential impacts.
- DTSC is unable to determine the locations of proposed sites due to the project's broad scope. DTSC is also unsure if these sites have documented contamination, land use restrictions, or are potentially included in a hazardous materials list. DTSC recommends providing more information on the project and areas under their oversight in the EIR. Additional comments may be provided as more information becomes available.
- DTSC believes the City of Lodi must address these comments to determine if any significant impacts under CEQA will occur and, if necessary, avoid significant impacts under CEQA. DTSC recommends the City connect with our unit if any hazardous waste projects managed or overseen by DTSC are discovered. DTSC recommends referring to City of Lodi EnviroStor Map for additional information about the areas of potential contamination.

2.3 INCORPORATION BY REFERENCE

Some documents are incorporated by reference into this Draft SEIR, consistent with Section 15150 of the CEQA Guidelines, and they are available for review at the City of Lodi. These include:

- City of Lodi Municipal Code. The City's Municipal Code provides the legal framework and regulations governing land use and development in the City of Lodi. The City's Municipal Code can be accessed through: https://library.municode.com/ca/lodi/codes/code_of_ordinances.
- City of Lodi General Plan. This plan outlines the long-term vision and policies for land use and community development in Lodi. It is crucial to understand how the proposed project aligns with the City's overall goals and planning framework. The City's updated General Plan is on their website: <https://www.lodi.gov/190/General-Plan>.
- City of Lodi General Plan Environmental Impact Report. This document provides a comprehensive analysis of the potential environmental impacts associated with the General Plan, serving as a key reference for evaluating the cumulative impacts of new projects. The City's General Plan EIR is on their website: <https://www.lodi.gov/191/Plan-Documents>.

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These documents are referenced to provide context and background for the environmental review process, ensuring that the Draft SEIR is informed by existing planning and regulatory frameworks.

2.4 PUBLIC REVIEW

This Draft SEIR is being circulated for public review for 45 days. Interested agencies and members of the public are invited to provide written comments on the Draft SEIR to the City address shown on the title page of this document. After completion of the 45-day review period, the City of Lodi will review all written comments received and prepare written responses for each. A Final SEIR will incorporate the comments received, responses to the comments, and any changes to the Draft SEIR that result from comments. The Final SEIR will be presented to the City of Lodi for potential certification as the environmental document for the project. All persons who comment on the Draft SEIR will be notified of the availability of the Final SEIR and the date of the public hearing before the City.

The Draft SEIR is available to the general public for review at various locations:

- City of Lodi website: <https://www.lodi.gov/1263/Environmental-Other-Plans-Projects>
- City of Lodi Planning Division: 221 West Pine Street, Lodi, CA 95240

2.5 MITIGATION MONITORING OR REPORTING

Section 15097 of the CEQA Guidelines requires that the lead agency adopt a monitoring or reporting program for any project for which it has made mitigation findings. Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR. As the proposed project is a General Plan Update, the mitigation measures are likely to be policies contained within the plan. Section 15097(b) allows the General Plan Annual Report required by Government Code Section 65400(2) to function as the mitigation and monitoring program. The General Plan Annual Report is required to be submitted to the California Governor's Office of Planning and Research (OPR) by April 1st of each year. The annual report is a public document and is presented to the Council prior to submission to OPR. The method of mitigation monitoring and reporting will be completed as part of the Final SEIR, and available to the public prior to certification of this SEIR.

INTRODUCTION

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3. Project Description

3.1 PROJECT LOCATION

The City of Lodi is an incorporated city in the San Joaquin Valley. The city is bordered by Stockton to the south, Galt to the north, and unincorporated San Joaquin County lands to the east and west. The city is bisected by State Route (SR-) 99 and the main line of the Union Pacific Railroad. Regional access to Lodi is also provided by SR-12 and Interstate 5. Figure 3-1, *Regional and Local Vicinity Map*, shows the city's location and its regional context.

3.1.1 CITY LIMITS

The City has jurisdiction over land use within the incorporated city limits, as maintained by the Local Agency Formation Commission (LAFCO). The Mokelumne River forms the northern boundary of the city; Harney and Hogan lanes form the southern edge. The Central California Traction Line (CCT) railroad (north of Kettleman Lane) and SR-99 (south of Kettleman Lane) form the eastern boundary. The western boundary extends approximately one-half mile west of Lower Sacramento Road. Lodi city limits encompass approximately 777,550 acres. See Figure 3-2, *Lodi Planning Area*.

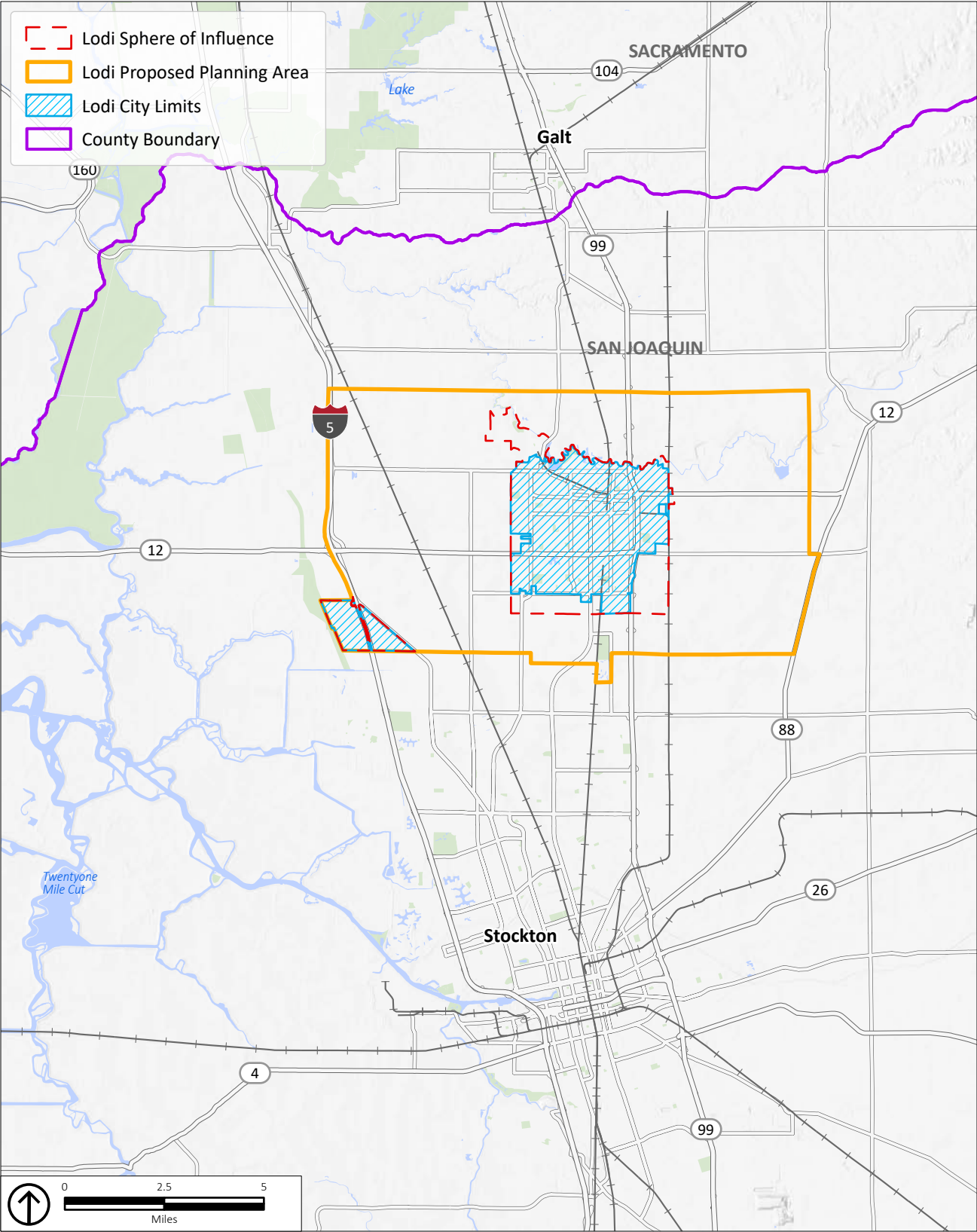
3.1.2 SPHERE OF INFLUENCE

The Sphere of Influence (SOI) is a boundary that identifies land that the City may potentially annex in the future, and for which urban services, if available, could be provided upon annexation. The SOI is established by the San Joaquin LAFCO with input from the City. The purpose of the SOI is to identify areas where urban development could be accommodated in the future in an orderly and efficient manner. The Lodi SOI is approximately 222,284 acres (see Figure 3-2).

Unincorporated areas adjacent to the Lodi city limits fall under the planning, land use, and regulatory jurisdiction of San Joaquin County. While the City does not have jurisdiction over land in the SOI, land use designations within the SOI set precedence for ensuring that the City is able to comment on development proposed for lands in the SOI prior to annexation and begin considering the future development of the area. Of particular importance will be to ensure that right-of-way is dedicated, and improvements made for lands that will eventually be annexed.

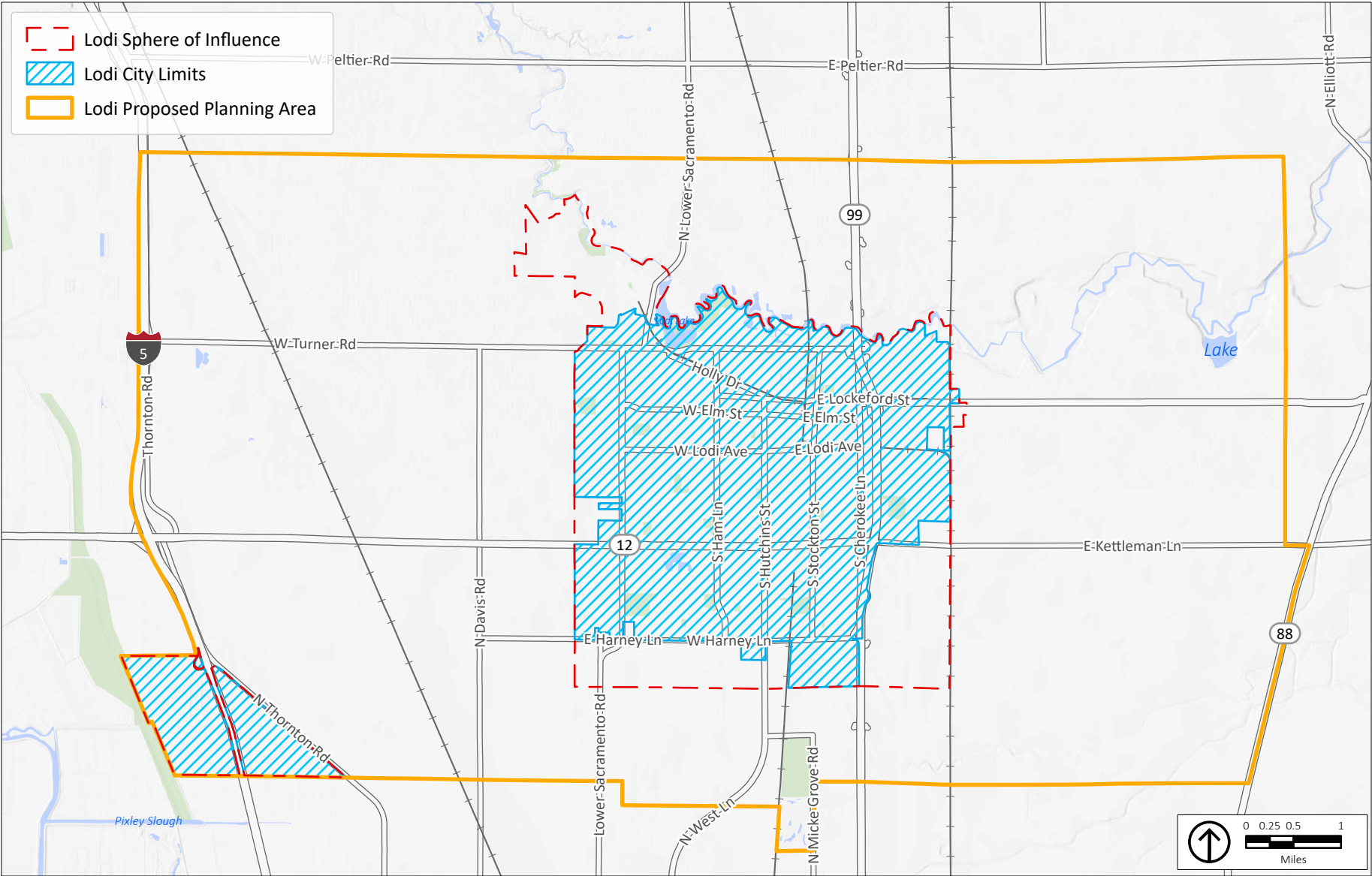
3.1.3 GENERAL PLAN AREA

The General Plan Area encompasses a total of 999,834.6 acres (land use designated areas) (see Figure 3-2).



Source: USGS, Esri, CAL FIRE- FRAP, City of Lodi, 2024.

Figure 3-1
Regional and Local Vicinity Map



Source: Esri, City of Lodi, Fehr & Peers, 2024.

Figure 3-2
Lodi Planning Area

PROJECT DESCRIPTION

3.2 PROJECT BACKGROUND

3.2.1 CITY OF LODI GENERAL PLAN (APPROVED PROJECT)

The existing City of Lodi General Plan was adopted in April 2010 (Resolution No. 91-170) and provides the planning tools necessary to guide development within the City of Lodi. The existing General Plan includes proposed land uses, development regulations, and design standards. In addition, the existing General Plan envisions a future leveraging its assets, promoting economic development, downtown vibrancy, and sustainable design while preserving agricultural lands. The existing General Plan also provides for a multimodal transportation network, infrastructure facilities required to support the implementation of the plan, and a plan for managing natural resources. Figure 3-3, *Lodi Existing Land Use Designations*, shows the adopted land uses in the existing General Plan.

3.2.2 CERTIFIED EIR OF 2009

The proposed project is an update to the existing General Plan; therefore, this Subsequent Environmental Impact Report (SEIR) relies on the findings of the 2009 EIR, per California Environmental Quality Act (CEQA) Guidelines Section 15162, and contains all the information necessary to ensure that the certified General Plan EIR fully evaluates the proposed project. Per CEQA Guidelines Sections 15148 and 15150, this SEIR incorporates the 2009 Certified EIR (and its constituent parts) by reference. All documents incorporated by reference are available for review at the City of Lodi Planning Division at 221 West Pine Street, in Lodi, and the City's website at: <https://www.lodi.gov/191/Plan-Documents>.

3.2.3 FINAL EIR OF 2009

The Lodi General Plan EIR (State Clearinghouse No. 2009022075) was certified in February 2009 (2009 Certified EIR or 2009 EIR). The Final EIR consists of the 2009 Draft EIR, technical appendices, response to comments, revisions to the EIR based on comments, and the mitigation monitoring and reporting program.

The 2009 EIR identified the following significant unavoidable impacts associated with the existing City of Lodi General Plan.

Traffic and Circulation

- **Impact 3.2-1:** The proposed General Plan would result in a substantial increase in vehicular traffic that would cause certain facilities to exceed level of service standards established by the governing agency.
- **Impact 3.2-2:** The proposed General Plan may adversely affect emergency access.
- **Impact 3.2-3:** The proposed General Plan may conflict with adopted policies, plans, or programs supporting alternative transportation modes.

PROJECT DESCRIPTION

Agriculture and Soil Resources

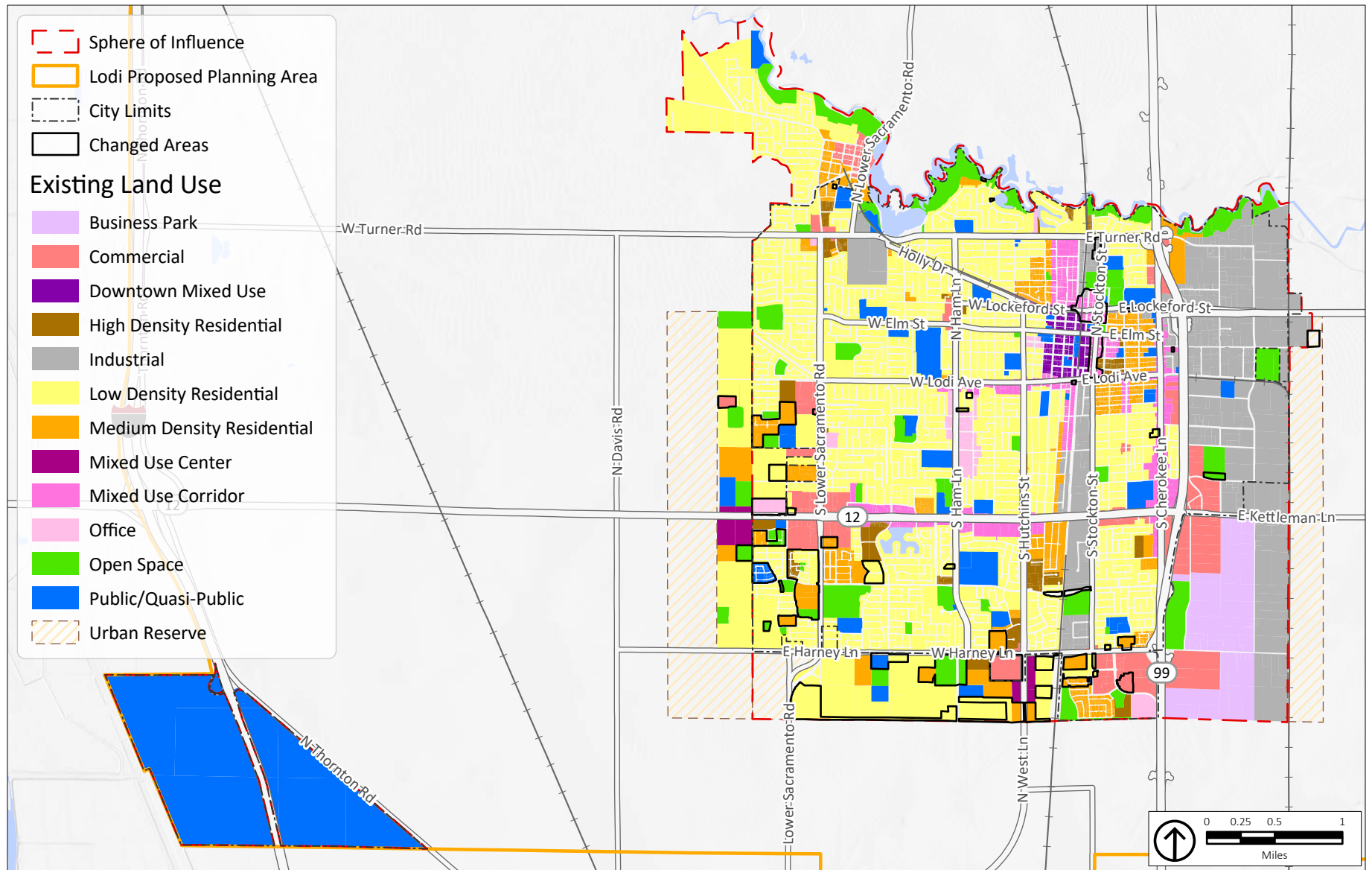
- **Impact 3.3-1:** Buildout of the proposed General Plan would convert substantial amounts of Important Farmland to nonagricultural use.

Air Quality

- **Impact 3.8-1:** Implementation of the proposed General Plan could result in a cumulatively considerable net increase of criteria pollutants which may conflict with or violate an applicable air quality plan, air quality standard or contribute substantially to an existing or projected air quality violation.
- **Impact 3.8-2:** Buildout of the proposed General Plan could expose sensitive receptors to substantial pollutant concentrations.

Noise

- **Impact 3.11-1:** Implementation of the proposed General Plan could result in a substantial permanent increase in ambient noise levels.



Source: Esri, City of Lodi, 2024.

Figure 3-3
Existing Land Use Designations in Lodi

PROJECT DESCRIPTION

3.3 PROJECT OBJECTIVES

The City of Lodi 2025 General Plan Update is a focused planning effort that will result in relatively narrow revisions to the General Plan. Specifically, this planning effort is intended to accomplish four primary objectives:

- Establish consistency between developed lands and General Plan designations.
- Enhance Land Use designations.
- Designate land to allow for affordable housing projects.

Facilitate development in downtown Lodi. Other elements include Environmental Justice, Safety, Conservation, and Housing Elements. The Environmental Justice Conservation Element and Safety Elements were adopted on December 4, 2024 (Resolution No. 2024-203). On April 11, 2024, the California Department of Housing and Community Development (HCD) completed its review of the adopted Housing Element and determined that it meets the statutory requirements of the State Housing Element Law.

3.3.1 LAND USE ELEMENT CHANGES

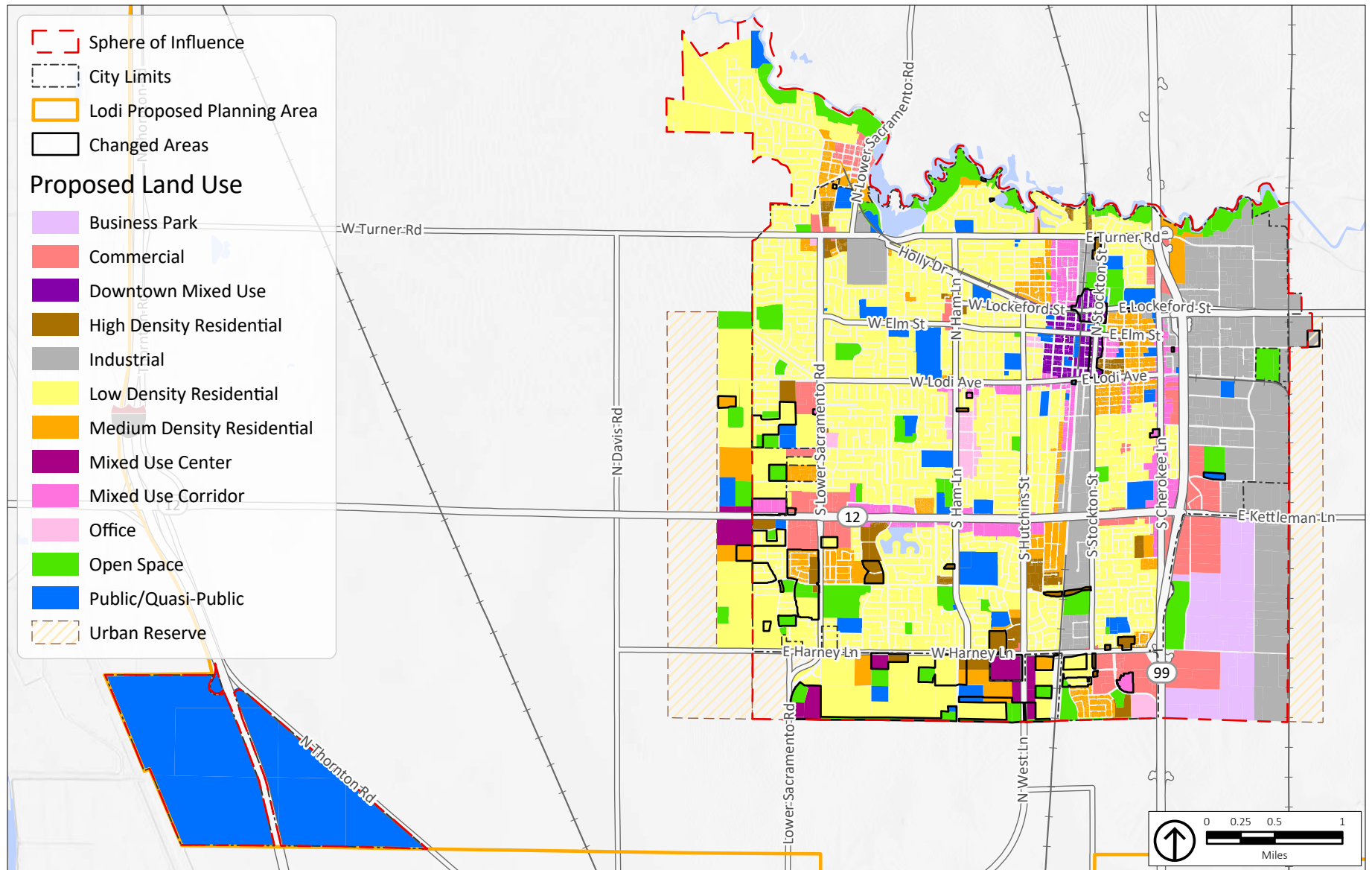
Land Use Designation Changes

As shown in Table 3-1, *Existing General Plan and Proposed Land Use Designation Acres*, the proposed project would increase the amount of land designated for Medium-Density Residential, Mixed-Use Center, Mixed-Use Corridor, Business Park, Industrial, Public/Quasi-Public, and Urban Reserve, and Right-of-Way. The proposed project would reduce the amount of land designated for High-Density Residential, Downtown Mixed-Use, Commercial, Office, and Open Space. Land use designations of Low-Density Residential and Water would remain the same and there are no new designations proposed. The proposed land use changes would occur throughout the city, as shown in Figure 3-4, *Lodi Proposed Land Use Designations*.

PROJECT DESCRIPTION

TABLE 3-1 EXISTING GENERAL PLAN AND PROPOSED LAND USE DESIGNATION ACRES

Land Use	General Plan 2020 (Existing Acres)	General Plan 2045 (Proposed Acres)	Difference (Acres)
Low-Density Residential	3,678.5	3,700.4	21.90
Medium-Density Residential	654.6	537.6	-117.00
High-Density Residential	192.2	249.6	57.40
Downtown Mixed-Use	58.9	89.3	30.40
Mixed-Use Center	27.0	98.7	71.70
Mixed-Use Corridor	375.0	366.6	-8.40
Business Park	389.0	389.0	0.00
Commercial	579.3	543.0	-36.30
Office	123.5	104.3	-19.20
Industrial	1,471.1	1,461.2	-9.90
Open Space	645.4	664.4	19.00
Public/Quasi-Public	1,489.7	1,480.2	-9.50
Urban Reserve	98.7	98.7	0.00
Water	51.6	51.6	0.00
Total	9,834.6	9,834.6	0.00



Source: Esri, City of Lodi, 2024.

Figure 3-4
Proposed Land Use Designations in Lodi

PROJECT DESCRIPTION

Table 3-2, *2045 General Plan Planning Horizon Forecast*, illustrates the projections for the City of Lodi with the proposed project. Note that these projections are based on the City's travel demand model.

TABLE 3-2 2045 GENERAL PLAN PLANNING HORIZON FORECAST

	Existing Conditions 2020			Current General Plan			Proposed General Plan 2045		
	City Limits	SOI	Total	City Limits	SOI	Total	City Limits	SOI	Total
Housing (Dwelling Units)									
Single-Family	16,720	1,161	17,881	18,364	3,754	22,118	18,364	3,303	21,667
Multifamily	5,705	60	5,765	6,621	882	7,503	6,621	966	7,587
Duplex	629	60	689	629	60	689	629	60	689
Mobile Home	540	101	641	540	101	641	540	101	641
Senior Units	535	0	535	797	229	1,026	797	229	1,026
Dwelling Units	24,129	1,382	25,511	26,951	5,026	31,977	26,951	4,659	31,610
Nonresidential (Thousand Square Feet – KSF)									
General Commercial	-	-	3,261	2,575	97	2,672	-	-	3,674
Neighborhood Commercial	994	5	999	1,033	37	1,070	1,033	37	1,070
Hotel	-	-	808	-	-	-	-	-	1,188
Office	1,581	27	1,608	1,829	359	2,188	1,825	296	2,121
Light Industrial	5,162	133	5,295	6,311	410	6,721	6,106	309	6,415
Heavy Industrial	3,836	223	4,059	4,125	291	4,416	4,092	381	4,473
Public Quasi-Public	819	44	863	819	44	863	819	44	863
Hospital	195	0	195	195	0	195	195	0	195
Thousand Square Feet (KSF)	-	-	17,088	17,959	1,239	19,198	-	-	19,999
Students									
High School	6,520	0	6,520	7,386	0	7,386	7,386	0	7,386
K-12 grade	9,885	60	9,945	11,940	1,780	13,720	11,940	1,780	13,720
Student Enrollment	16,405	60	16,465	19,326	1,780	21,106	19,326	1,780	21,106
Population¹									
People	62,735	3,593	66,328	70,073	13,068	83,141	70,073	12,113	82,186
Employment²									
Jobs	24,844	556	25,400	28,366	2,171	30,537	28,118	2,002	30,120

¹ Based on the Department of Finance 2022 and 2023 population and housing estimates, the population per housing unit ratio for the City of Lodi is 2.60.

² Estimated based on employment per KSF, student, and hotel room. The factors used to estimate total employment are consistent with the City of Lodi SB 743 analysis.

KSF = Thousand square feet

PROJECT DESCRIPTION

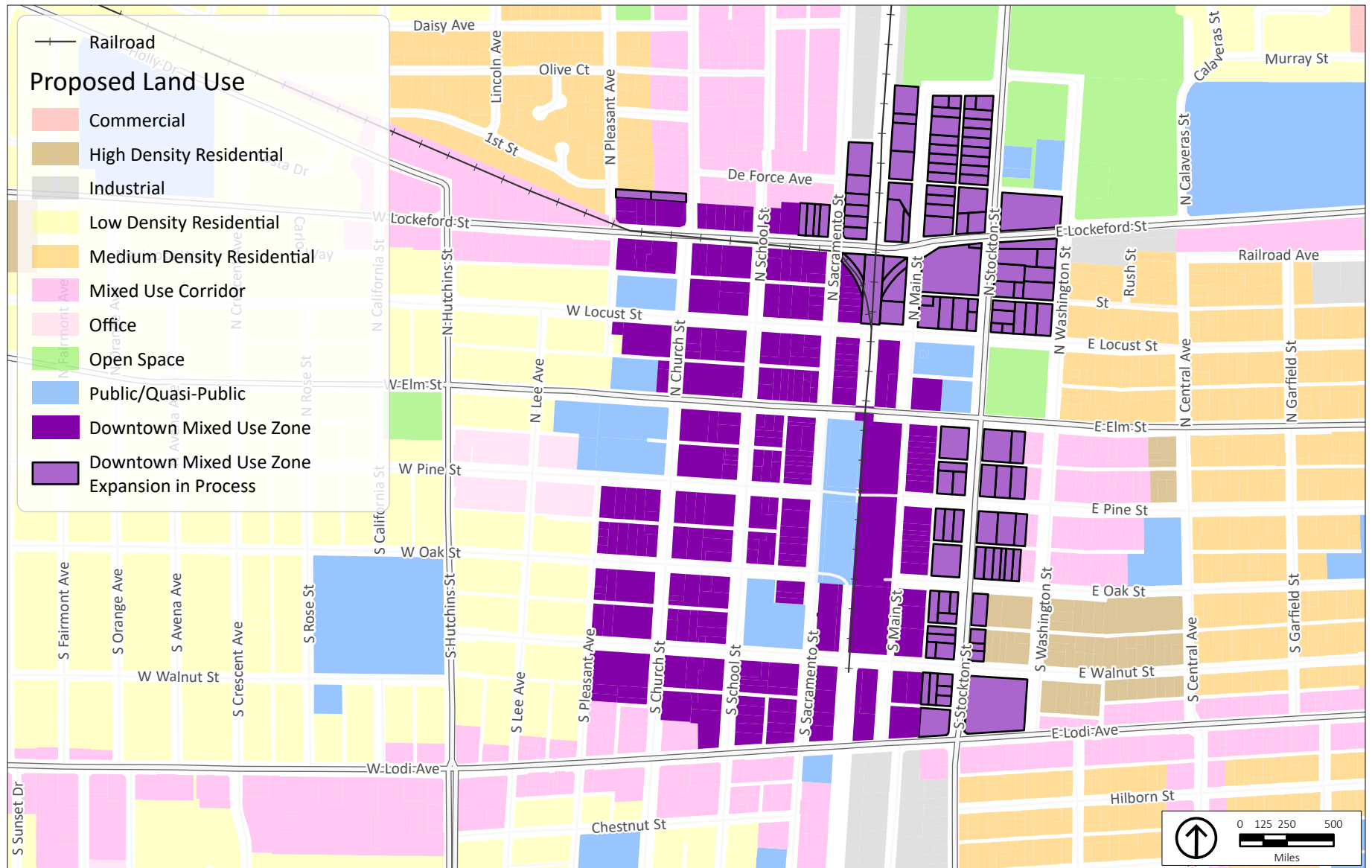
Downtown Plan

The Lodi 2025 General Plan Update includes revisions to land use policies and programs to facilitate investment in and improvement of the downtown. The Lodi 2025 General Plan Update SEIR has assumed development intensities for the Downtown Mixed-Use designation in the upper range of allowable densities to ensure the environmental analysis considers the impacts of more intensive downtown uses.

While not part of the proposed project, the City anticipates the preparation and adoption of a Downtown Plan that will link the policies of the General Plan and streamline individual development approvals in the Downtown Mixed-Use (DMU) area (see Figure 3-5, *Lodi Downtown*). The existing General Plan designation and zone district development regulations are adequate to realize the vision of the downtown. The Downtown Plan is likely to include a process to allow the transfer housing density and building intensity within the Downtown to incentivize ground level amenities without the loss of dwelling units and/or jobs. An example would be a transfer of density from a ground floor pedestrian plaza to other parcels within the Downtown so that the amount of development realized overall remains consistent with the land use designations in this General Plan and the zone district. The focus of the Downtown Plan is to create connectivity for pedestrians, access underutilized infrastructure such as the parking garage, and provide objective design standards unique to the downtown.

Land Use Map Cleanup

Historically, the City of Lodi has relied on Planned Development (PD) designations in the process of annexing land and guiding land development. Such PD documents provided the basis for designations on the General Plan land use map. Considered to be flexible in the configuration of land uses, development in PDs generally matches the intent of the PD documents (number of acres of each land use type) but has not always strictly adhered to the original PD land use configurations. As a result, completed development projects do not always match the land use designations of the General Plan land use map. The General Plan Update includes many minor revisions of land use boundaries that bring the General Plan land use map into conformance with existing development.



Source: Esri, City of Lodi, 2024.

Figure 3-5
Lodi Downtown

PROJECT DESCRIPTION

Growth Management and Infrastructure

The Growth Management and Infrastructure Element is included to preserve the city's compact urban form, open spaces, and agricultural lands while accommodating growth needs.

3.3.2 TRANSPORTATION

The existing Transportation Element uses level of service (LOS) to qualitatively describe the operating conditions of a roadway based on factors such as speed, travel time, safety, etc. The existing Transportation Element establishes an LOS standard to ensure adequate vehicle mobility and establish a benchmark for project approval. The General Plan Update and its SEIR would use and analyze vehicle miles traveled (VMT).

SB 743 Background

Senate Bill (SB) 743, enacted in 2013, introduced a significant shift in how transportation impacts are evaluated under the California Environmental Quality Act (CEQA). Prior to SB 743, the primary metric for assessing the transportation impacts of development projects was Level of Service (LOS), which primarily focused on vehicle delay and congestion. However, LOS was found to have several limitations, including its tendency to encourage sprawl and contribute to environmental degradation.

SB 743 mandates that, under CEQA, transportation impacts now be evaluated using VMT rather than LOS. This change aligns with California's broader goals to reduce greenhouse gas emissions, promote sustainable growth patterns, and decrease vehicle dependence. Focusing on VMT encourages the development of land uses and transportation systems that reduce environmental impacts, improve air quality, and enhance mobility for all transportation modes, including pedestrian, cycling, and transit.

In response to SB 743, the City of Lodi has updated its transportation planning guidelines and policies to comply with this new approach. These updates prioritize VMT reduction as a core goal, and the City's General Plan reflects this shift with specific policies that support sustainable transportation planning and development.

Lodi VMT Thresholds

SB 743 led to the addition of Section 15064.3, Determining the Significance of Transportation Impacts, of the CEQA Guidelines. This section provides that VMT is generally the most appropriate measure for assessing transportation impacts. VMT is defined as the total miles driven by a vehicle, irrespective of the number of occupants, and is typically expressed as a daily value for a typical weekday when schools are in session.

The Implementation Guidelines established the City's VMT thresholds of significance, which provide criteria for analyzing transportation impacts of land use projects. In December 2018, the Governor's Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA, which guided the implementation of SB 743. The Implementation Guidelines also generally allow for 'screening out' of projects that are presumed to be less than significant based on the OPR's Technical

PROJECT DESCRIPTION

Advisory on Evaluating Transportation Impacts in CEQA. The City of Lodi has adopted the following VMT thresholds and screening criteria consistent with the OPR's guidelines:

- Small Projects – Projects that generate 110 trips per day or less. This equates to about 10,000 square feet of office space, 11 single-family dwelling units, or 17 multi-family dwelling units.
- Projects near Transit Stations – projects located within ½ mile of an “existing major transit stop” or an “existing stop along a high quality transit corridor” would have a less-than-significant impact on VMT.
- Affordable Residential Development – projects consisting of a high percentage of affordable housing may be assumed to cause a less-than-significant transportation impact on VMT because they may improve jobs-housing balance and/or otherwise generate less VMT than market-based units.
- Redevelopment Projects – If a proposed redevelopment project leads to a net overall decrease in VMT (when compared against the VMT of the existing land uses), the project would lead to a less-than-significant transportation impact.
- Local Serving Retail – Trip lengths may be shortened and VMT reduced by adding “local-serving” retail opportunities that improve retail destination proximity. Page 17 of the Technical Advisory generally describes retail development including stores less than 50,000 square feet as locally-serving.

For projects that do not qualify for any of the screening opportunities, the City of Lodi will apply the following thresholds of significance when analyzing the VMT transportation impacts of development projects under CEQA:

Residential Land Uses

The project would cause a significant transportation impact if it would generate an average VMT per dwelling unit that is greater than 85 percent of the city-wide average for that land use type. If the above threshold is exceeded, the project's VMT impact could still be found to be less-than-significant if it did not cause the total VMT generated by the City of Lodi to increase.

Non-Residential Land Uses

The project would cause a significant transportation impact if it would generate an average VMT per KSF that is greater than 85 percent of the city-wide average for that land use type. If the above threshold is exceeded, the project's VMT impact could still be found to be less-than-significant if it did not cause the total VMT generated by the City of Lodi to increase.

Atypical and Mixed-Use Projects

Special consideration will be necessary to analyze VMT impacts for land uses that do not fit into any of the above categories. Common examples are hotels, medical centers, wineries, churches, schools/colleges, specialty retail uses, etc. These uses should be analyzed on a case-by-case basis using available information and applying the general intent of the Technical Advisory.

PROJECT DESCRIPTION

Additionally, projects that feature a mix of complementary land uses on-site should be analyzed using a technical approach geared toward the specifics of the project. The Technical Advisory describes two possible approaches: (1) analyze (considering internal trips) and determine significant impacts of each project component separately, or (2) consider significant impacts based on the project's dominant land use.

The importance of producing consistent VMT estimates is described in the Technical Advisory, stating that "The agency should be consistent in its VMT measurement approach throughout the analysis to maintain an apples-to-apples comparison. For example, if the agency uses a home-based VMT for the threshold, it should also use home-based VMT for calculating project VMT and VMT reduction due to mitigation measures.

Transportation Projects

A transportation project would cause a significant transportation impact if it would lead to induced travel and increased VMT.

Transportation Policies and Actions

In alignment with SB 743, the City's General Plan has been amended to incorporate new goals, policies, and actions that support VMT reduction and the integration of sustainable transportation practices. These amendments include the following:

- **Policy T-P50:** Continue to implement the SB 743 Implementation Guidelines for City of Lodi January 2025 that reduces the total vehicle miles of travel by making efficient use of existing transportation facilities and by providing for more direct routes for pedestrians and bicyclists through the implementation of "smart growth" and sustainable planning principles.
- **Policy T-P51:** Periodically update the City's SB 743 Implementation Guidelines to remain consistent with State standards, guidelines and regulations related to reduction of VMT.
- **Policy T-P52:** Within its SB 743 Implementation Guidelines, the City shall identify types of projects for which VMT impacts are considered less-than-significant and shall identify types of projects that typically exceed the City's VMT thresholds. The City's SB 743 Guidelines shall be periodically reviewed and updated as needed to maintain consistency with State VMT reduction guidance.
- **Policy T-P53:** Development projects shall be reviewed for consistency with the City's SB 743 Implementation Guidelines as adopted at the time of development review or other VMT reduction criteria as may be adopted by the City at time of project review.
- **Policy T-P54:** The City shall evaluate transportation improvement projects for consistency with the City's SB 743 Implementation Guidelines or other VMT reduction criteria as may be adopted by the City.
- **Policy T-P55:** For projects that exceed the City's VMT thresholds, as adopted in the City's SB 743 Implementation Guidelines or any other VMT reduction criteria as may be adopted by the City, feasible mitigation measures shall be required to reduce VMT impacts.

These amendments ensure that the City's General Plan aligns with the goals of SB 743, focusing on reducing VMT and creating a more sustainable and equitable transportation system. Through these revisions, the City seeks to enhance mobility, reduce environmental impacts, and improve quality of life for all residents.

PROJECT DESCRIPTION

3.4 PROJECT PERMITS AND APPROVALS

The proposed project would be adopted solely by the City of Lodi. Future development would need to conform to applicable development and design standards and be consistent with the General Plan Update policies. Depending on the proposal, a future development project may be exempt from CEQA review because a CEQA exemption applies or the approval is ministerial, or a project may require further environmental review and subsequent analysis in a negative declaration, mitigated negative declaration, or EIR. Projects may be ministerial and require no discretionary action or may require review and approval by the Planning Department, the Planning Commission, and/or City Council, and other agencies, as needed. Permits would be needed for the construction of all structures, to allow for certain uses or events in the General Plan Area, and to approve encroachments in the right-of-way.

Additionally, the following would be required to be adopted to implement the proposed project:

- Certify the SEIR
- Adopt the General Plan
- Adopt a Downtown Plan
- Modify the Development Code to reflect the changes in the General Plan

3.5 INTENDED USES OF THE SEIR

This is a Program SEIR that examines the potential environmental impacts of the proposed project. This Draft SEIR also addresses various actions by the City to adopt and implement the General Plan Update. This SEIR serves as a Program SEIR under CEQA Guidelines Section 15168. According to CEQA Guidelines Section 15168(b), use of a Program SEIR can provide advantages, including:

- Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an SEIR on an individual action.
- Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis.
- Avoid duplicative reconsideration of basic policy considerations.
- Allow the lead agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts.
- Allow reduction in paperwork.

As a Program SEIR, this document focuses on the overall effects of the proposed project. The analysis does not examine the effects of any potential specific projects that may occur during the planning horizon. Further, the nature of the General Plan is such that some proposed policies are intended to be more qualitative, with specific details to be determined upon development of a specific project. No development or subdivision maps are being requested as a part of this project. Any impacts associated with subdivision or development that are not fully evaluated in the scope of this SEIR may require further environmental analysis. However, the City envisions that this Program SEIR may be used to eliminate or reduce the scope

PROJECT DESCRIPTION

of future environmental review for individual projects that are consistent with the General Plan pursuant to CEQA Guidelines Section 15183 and other streamlining provisions authorized by CEQA.

The intent of this Draft SEIR is to evaluate the environmental impact of the project, thereby enabling the City, other responsible agencies, and interested parties to make informed decisions with respect to the requested entitlements

PROJECT DESCRIPTION

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Environmental Analysis

4. Chapter 4 examines the environmental setting of the proposed project and analyzes its effects and the significance of its impacts, and recommends mitigation measures to reduce or avoid impacts. This chapter has a separate section for each environmental issue area (Section 4.1 through 4.10). The scope was determined based on public and agency comments received during the Notice of Preparation (NOP) comment period from February 16, 2024, through March 15, 2024 (see Appendix A), and during the scoping meeting held on February 22, 2024. Environmental issues and their corresponding sections are:

- Section 4.1, Air Quality
- Section 4.2, Energy
- Section 4.3, Greenhouse Gas Emissions
- Section 4.4, Land Use and Planning
- Section 4.5, Noise
- Section 4.6, Population and Housing
- Section 4.7, Public Services
- Section 4.8, Parks and Recreation
- Section 4.9, Transportation
- Section 4.10, Utilities and Service Systems

Sections 4.1 through 4.10 provide a detailed discussion of the environmental setting, impacts associated with the proposed project, and mitigation measures designed to reduce significant impacts where required and when feasible. The residual impacts following the implementation of any mitigation measure are also discussed.

4.1 FORMAT OF THE ENVIRONMENTAL ANALYSIS

Each section of the Supplemental Environmental Impact Report (SEIR) is organized into the following subsections:

- **Environmental Setting** provides an overview of federal, State, regional, and local laws and regulations relevant to each environmental issue, along with a description of the existing environmental conditions, providing a baseline against which the impacts of the proposed project can be compared.
- **Standards of Significance** refers to the quantitative or qualitative standards or conditions used to compare the existing setting with and without the proposed project to determine whether the impact is significant. These standards are based primarily on the California Environmental Quality Act (CEQA) Guidelines, and may reflect established health standards, ecological tolerance standards, public service capacity standards, or guidelines established by agencies or experts.

ENVIRONMENTAL ANALYSIS

- **Proposed General Plan Policies** lists goals and policies from the existing General Plan that would be modified under the proposed project or are new since adoption of the General Plan.
- **Environmental Impacts** gives an overview of the potential impacts of the proposed project and explains why impacts were found to be significant or less than significant and includes suggested measures that would mitigate impacts with a potentially significant or significant impact. Impacts and mitigation measures are numbered consecutively in each topical analysis and begin with an acronymic or abbreviated reference to the impact section (e.g., AIR for Air Quality).
- **Cumulative Impacts** gives an overview of the potential cumulative impacts of the proposed project in combination with past, present, and reasonably anticipated future projects and explains why impacts were found to be cumulatively considerable or not and includes suggested measures that would mitigate impacts with a potentially significant or significant cumulative impact.
- **References** lists the relevant sources cited and used in the environmental analysis of a particular topic.

4.2 TERMINOLOGY USED IN THIS DRAFT SEIR

The level of significance is identified for each impact in this SEIR. Although the criteria for determining significance are different for each topic area, the environmental analysis applies a uniform classification of the impacts based on definitions consistent with CEQA and the CEQA Guidelines:

- **No impact.** The proposed project would not change the environment.
- **Less than significant.** The proposed project would not cause any substantial, adverse change in the environment.
- **Less than significant with mitigation incorporated.** The SEIR includes mitigation measures that avoid substantial adverse impacts on the environment resulting from the proposed project.
- **Significant and unavoidable.** The proposed project would have a substantial adverse effect on the environment. Even with the application of feasible mitigation measures, the impact cannot be reduced to a less-than-significant level.

4.1 AIR QUALITY

This section describes the potential impacts to air quality associated with the adoption and implementation of the City of Lodi General Plan Update (proposed project) in comparison to the existing General Plan (approved project) and impacts evaluated in the 2009 environmental impact report (EIR). This section describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential air quality impacts, and identifies General Plan policies and feasible mitigation measures that could mitigate any potentially significant impacts.

This evaluation is based on the methodology recommended by the San Joaquin Valley Unified Air Pollution Control District (SJVAPCD). The analysis focuses on air pollution from regional emissions and localized pollutant concentrations. Criteria air pollutant emissions modeling is included in Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft Supplemental Environmental Impact Report (SEIR). Transportation-sector impacts are based on trip generation and vehicle miles traveled provided by Fehr & Peers. Cumulative impacts related to air quality are based on the regional boundaries of the San Joaquin Valley Air Basin (SJVAB).

4.1.1 ENVIRONMENTAL SETTING

4.1.1.1 TERMINOLOGY

The following are definitions for terms used throughout this section.

- **AAQS.** Ambient Air Quality Standards.
- **CES.** CalEnviroScreen (CES) is a mapping tool that helps identify the California communities most affected by sources of pollution and where people are often especially vulnerable to pollution's effects.
- **Concentrations.** Refers to the amount of pollutant material per volumetric unit of air. Concentrations are measured in parts per million (ppm), parts per billion (ppb), or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).
- **Criteria Air Pollutants.** Those air pollutants specifically identified for control under the Federal Clean Air Act (currently seven—carbon monoxide, nitrogen oxides, lead, sulfur oxides, ozone, and coarse and fine particulates).
- **DPM.** Diesel particulate matter.
- **Emissions.** Refers to the actual quantity of pollutant, measured in tons per year.
- **ppm.** Parts per million.
- **Sensitive receptor.** Land uses that are considered more sensitive to air pollution than others due to the types of population groups or activities involved. These land uses include residential, retirement facilities, hospitals, and schools.
- **TAC.** Toxic air contaminant.
- **$\mu\text{g}/\text{m}^3$.** Micrograms per cubic meter.
- **VMT.** Vehicle miles traveled.

AIR QUALITY

4.1.1.2 AIR POLLUTANTS OF CONCERN

Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead (Pb) are primary air pollutants. Of these, CO, SO₂, nitrogen dioxide (NO₂), coarse inhalable particulate matter (PM₁₀), and fine inhalable particulate matter (PM_{2.5}) are “criteria air pollutants,” which means that ambient air quality standards (AAQS) have been established for them. VOC and NO_x are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O₃) and nitrogen dioxide (NO₂) are the principal secondary pollutants. Table 4.1-1, *Criteria Air Pollutant Health Effects Summary*, summarizes the potential health effects associated with the criteria air pollutants.

TABLE 4.1-1 CRITERIA AIR POLLUTANT HEALTH EFFECTS SUMMARY

Pollutant	Health Effects	Examples of Sources
Carbon Monoxide (CO)	<ul style="list-style-type: none"> ▪ Chest pain in heart patients ▪ Headaches, nausea ▪ Reduced mental alertness ▪ Death at very high levels 	<ul style="list-style-type: none"> ▪ Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Ozone (O ₃)	<ul style="list-style-type: none"> ▪ Cough, chest tightness ▪ Difficulty taking a deep breath ▪ Worsened asthma symptoms ▪ Lung inflammation 	<ul style="list-style-type: none"> ▪ Atmospheric reaction of organic gases with nitrogen oxides in sunlight
Nitrogen Dioxide (NO ₂)	<ul style="list-style-type: none"> ▪ Increased response to allergens ▪ Aggravation of respiratory illness 	<ul style="list-style-type: none"> ▪ Same as carbon monoxide sources
Particulate Matter (PM ₁₀ and PM _{2.5})	<ul style="list-style-type: none"> ▪ Hospitalizations for worsened heart diseases ▪ Emergency room visits for asthma ▪ Premature death 	<ul style="list-style-type: none"> ▪ Cars and trucks (particularly diesel vehicles) ▪ Fireplaces and woodstoves ▪ Windblown dust from overlays, agriculture, and construction
Sulfur Dioxide (SO ₂)	<ul style="list-style-type: none"> ▪ Aggravation of respiratory disease (e.g., asthma and emphysema) ▪ Reduced lung function 	<ul style="list-style-type: none"> ▪ Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, and industrial processes
Lead (Pb)	<ul style="list-style-type: none"> ▪ Behavioral and learning disabilities in children ▪ Nervous system impairment 	<ul style="list-style-type: none"> ▪ Contaminated soil

Sources: CARB 2024a.

A description of each of the primary and secondary criteria air pollutants and its known health effects is presented below.

- **Carbon Monoxide (CO)** is a colorless, odorless gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is

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interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (USEPA 2024a). The SJVAB is designated under the California and National AAQS as being in attainment of CO criteria levels (CARB 2024b).

- **Volatile Organic Compounds (VOCs)** are compounds composed primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of VOCs. Other sources of VOCs include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. There are no ambient air quality standards established for VOCs. However, because they contribute to the formation of O₃, the SJVAPCD has established a significance threshold for this pollutant.
- **Nitrogen Oxides (NO_x)** are a by-product of fuel combustion and contribute to the formation of ground-level O₃, PM₁₀, and PM_{2.5}. The two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO₂). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO₂ produced by combustion is NO, but NO reacts with oxygen quickly to form NO₂, creating the mixture of NO and NO₂ commonly called NO_x. NO₂ acts as an acute irritant and is more injurious than NO in equal concentrations. At atmospheric concentrations, however, NO₂ is only potentially irritating. NO₂ absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO₂ exposure concentrations near roadways are of particular concern for susceptible individuals, including people with asthma, children, and the elderly. Current scientific evidence links short-term NO₂ exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects, including airway inflammation in healthy people and increased respiratory symptoms in people with asthma. Also, studies show a connection between breathing elevated short-term NO₂ concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma (USEPA 2024a). The SJVAB is designated an attainment area for NO₂ under the National and California AAQS (CARB 2024b).
- **Sulfur Dioxide (SO₂)** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO₂. When sulfur dioxide forms sulfates (SO₄) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_x). Thus, SO₂ is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO₂ may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO₂, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects including bronchoconstriction and increased asthma symptoms. These effects are particularly important for asthmatics at elevated ventilation rates (e.g., while exercising or playing.) At lower concentrations and when combined with particulates, SO₂ may do greater harm by injuring lung tissue. Studies also show a connection between short-term exposure and increased visits to emergency departments and hospital admissions for respiratory illnesses, particularly in at-risk populations including children, the elderly, and asthmatics (USEPA 2024a). The SJVAB is designated attainment under the California and National AAQS (CARB 2024b).
- **Suspended Particulate Matter (PM₁₀ and PM_{2.5})** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM₁₀, include particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or PM_{2.5}, have

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an aerodynamic diameter of 2.5 microns (i.e., 2.5 millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Both PM₁₀ and PM_{2.5} may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. The US Environmental Protection Agency's (EPA) scientific review concluded that PM_{2.5}, which penetrates deeply into the lungs, is more likely than PM₁₀ to contribute to health effects and at concentrations that extend well below those allowed by the current PM₁₀ standards. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing). Diesel particulate matter (DPM) is classified by the California Air Resources Board (CARB) as a carcinogen. Particulate matter can also cause environmental effects such as visibility impairment,¹ environmental damage,² and aesthetic damage (USEPA 2024a).³ The SJVAB is a nonattainment area for PM₁₀ under the California AAQS and nonattainment for PM_{2.5} under the California and National AAQS (CARB 2024b).

- **Ozone (O₃)** is commonly referred to as “smog” and is a gas that is formed when VOCs and NO_x, both by-products of internal combustion engine exhaust, undergo photochemical reactions in the presence of sunlight. O₃ is a secondary criteria air pollutant. O₃ concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for its formation. O₃ poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O₃ can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O₃ also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O₃ also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O₃ harms sensitive vegetation, including forest trees and plants during the growing season (USEPA 2024a). The SJVAB is designated nonattainment under the California AAQS (1-hour and 8-hour) and nonattainment under the National AAQS (8-hour) (CARB 2024b).
- **Lead (Pb)** is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from on-road motor vehicle gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions to the air today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. Once taken into the body, lead distributes throughout the body in the blood and is accumulated in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects

¹ PM_{2.5} is the main cause of reduced visibility (haze) in parts of the United States.

² Particulate matter can be carried over long distances by wind and then settle on ground or water. The effects of this settling include: making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.

³ Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

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the oxygen-carrying capacity of the blood. The lead effects most commonly encountered in current populations are neurological effects in children and cardiovascular effects (e.g., high blood pressure and heart disease) in adults. Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (USEPA 2024a). The SJVAB is designated in attainment of the California and National AAQS for lead (CARB 2024b). Because emissions of lead are found only in projects that are permitted by SJVAPCD, lead is not an air quality of concern for the proposed project.

Toxic Air Contaminants

People exposed to toxic air pollutants (TAC) at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and other health problems (USEPA 2024b). At the time of the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. There are no air quality standards for TACs. Instead, TAC impacts are evaluated by calculating the health risks associated with a given exposure. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most relevant to the proposed project being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified DPM as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs. Long-term (chronic) inhalation of DPM is likely a lung cancer risk. Short-term (i.e., acute) exposure can cause irritation and inflammatory symptoms and may exacerbate existing allergies and asthma symptoms (USEPA 2002).

Placement of New Sensitive Receptors

Because placement of sensitive land uses falls outside CARB's jurisdiction, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) to address the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources.

CARB's recommendations on the siting of new sensitive land uses, identified in Table 4.1-2, *CARB Recommendations for Siting New Sensitive Land Uses*, were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources.

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TABLE 4.1-2 CARB RECOMMENDATIONS FOR SITING NEW SENSITIVE LAND USES

Source/Category	Advisory Recommendations
Freeways and High-Traffic Roads	Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day.
Distribution Centers	Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units [TRUs] per day, or where TRU unit operations exceed 300 hours per week). Take into account the configuration of existing distribution centers and avoid locating residences and other sensitive land uses near entry and exit points.
Rail Yards	Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or CARB on the status of pending analyses of health risks.
Refineries	Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloroethylene	Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult with the local air district. Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations.
Gasoline Dispensing Facilities	Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities.

Source: CARB 2005.

The key observation in these studies is that proximity to air pollution sources substantially increases both exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic: DPM from trucks and benzene and 1,3-butadiene from passenger vehicles.

In 2017, CARB provided a supplemental technical advisory to the handbook for near-roadway air pollution exposure, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways*. Strategies include practices and technologies that reduce traffic emissions, increase dispersion of traffic pollution (or the dilution of pollution in the air), or remove pollution from the air (CARB 2017).

4.1.1.3 REGULATORY FRAMEWORK

Federal, state, and local air districts have passed laws and regulations intended to control and enhance air quality. Land use in the General Plan Area is subject to the rules and regulations imposed by SJVAPCD, CARB, and the EPA. The regulatory framework summarized here is potentially applicable to the proposed project.

Federal and State Regulations

AAQS have been adopted at federal and State levels for criteria air pollutants. In addition, both the federal and State governments regulate the release of TACs. The City of Lodi is in the SJVAB and is subject to the rules and regulations imposed by the SJVAPCD, the National AAQS adopted by the EPA, and the California AAQS adopted by CARB.

Ambient Air Quality Standards for Criteria Air Pollutants

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollutants. The California CAA, signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS.

The National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors” most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and people engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 4.1-3, *Ambient Air Quality Standards for Criteria Pollutants*. These pollutants are ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead (Pb). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

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TABLE 4.1-3 AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS

Pollutant	Averaging Time	California Standard ^a	Federal Primary Standard ^b	Major Pollutant Sources
Ozone (O ₃) ^c	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20.0 ppm	35.0 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9.0 ppm	
Nitrogen Dioxide (NO ₂)	Annual Average	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Particulate Matter (PM ₁₀) ^d	Annual Arithmetic Mean	20.0 µg/m ³	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50.0 µg/m ³	150.0 µg/m ³	
Respirable Particulate Matter (PM _{2.5}) ^{e,f}	Annual Arithmetic Mean	12.0 µg/m ³	9.0 µg/m ³	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35.0 µg/m ³	
Lead (Pb)	30-Day Average	1.5 µg/m ³	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarterly	*	1.5 µg/m ³	
	Rolling 3-Month Average	*	0.15 µg/m ³	
Sulfates (SO ₄) ^g	24 hours	25 µg/m ³	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo ^f = 0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.

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TABLE 4.1-3 AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS

Pollutant	Averaging Time	California Standard ^a	Federal Primary Standard ^b	Major Pollutant Sources
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H ₂ S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hour	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2016.

Notes: ppm: parts per million; µg/m³: micrograms per cubic meter

* Standard has not been established for this pollutant/duration by this entity.

a. California standards for O₃, CO (except 8-hour Lake Tahoe), SO₂ (1 and 24 hour), NO₂, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b. National standards (other than O₃, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

c. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

d. On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

e. On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

f. On February 7, 2024, the national annual PM_{2.5} standard was lowered from 12 µg/m³ to 9 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary), secondary annual PM_{2.5} standard, and PM₁₀ standards (primary and secondary) were retained

g. On June 2, 2010, a new 1-hour SO₂ standard was established, and the existing 24-hour and annual arithmetic mean standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

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California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- **AB 1493: Pavley Fuel Efficiency Standards.** Pavley I is a clean-car standard that reduces emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025.
- **Heavy-Duty (Tractor-Trailer) GHG Regulation.** The tractors and trailers subject to this regulation must either use EPA SmartWay certified tractors and trailers or retrofit their existing fleet with SmartWay-verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low-rolling-resistance tires. Sleeper-cab tractors model year 2011 and later must be SmartWay certified. All other tractors must use SmartWay-verified low-rolling-resistance tires. This rule has criteria air pollutant co-benefits.
- **SB 1078 and SB 107: Renewables Portfolio Standards.** A major component of California's Renewable Energy Program is the renewables portfolio standard established under Senate Bills 1078 (Sher) and 107 (Simitian). Under this standard, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010.
- **California Code of Regulations (CCR) Title 20: Appliance Energy Efficiency Standards.** The 2006 Appliance Efficiency Regulations (20 CCR secs. 1601–1608) were adopted by the California Energy Commission on October 11, 2006, and 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. This code reduces natural gas use from appliances.
- **24 CCR, Part 6: Building and Energy Efficiency Standards.** Energy conservation standards for new residential and nonresidential buildings adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977. This code reduces natural gas use from buildings.
- **24 CCR, Part 11: Green Building Standards Code.** 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. This code reduces natural gas use from buildings.

Tanner Air Toxics Act and Air Toxics "Hot Spot" Information and Assessment Act

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal CAA (42 US Code Section 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency, acting through CARB, is authorized to identify a substance as a

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TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics “Hot Spot” Information and Assessment Act of 1987). The Tanner Air Toxics Act sets up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an “airborne toxics control measure” for sources that emit designated TACs. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs that are identified as having no safe threshold.

Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings.

CARB has promulgated the following specific rules to limit TAC emissions:

- **13 CCR Chapter 10 Section 2485.: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.** Generally restricts on-road diesel-powered commercial motor vehicles with a gross vehicle weight rating of greater than 10,000 pounds from idling more than five minutes.
- **13 CCR Chapter 10 Section 2480: Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools.** Generally restricts a school bus or transit bus from idling for more than five minutes when within 100 feet of a school.
- **13 CCR Section 2477 and Article 8: Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate.** Regulations established to control emissions associated with diesel-powered TRUs.

Regional Regulations

San Joaquin Valley Unified Air Pollution Control District

The primary role of SJVAPCD is to develop plans and implement control measures in the SJVAB to control air pollution to ensure that the National and California AAQS are attained and maintained. These controls primarily affect stationary sources such as industry and power plants. Rules and regulations have been developed by SJVAPCD to control air pollution from a wide range of air pollution sources. SJVAPCD also provides uniform procedures for assessing potential air quality impacts of proposed projects and for preparing the air quality section of environmental documents (SJVAPCD 2015a).

Air Quality Planning

The EPA requires states that have areas that do not meet the National AAQS to prepare and submit air quality plans showing how the National AAQS will be met. If the states cannot show how the National AAQS will be met, then the states must show progress toward meeting the National AAQS. These plans are

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referred to as the State Implementation Plans (SIP). California's adopted *2007 State Strategy* was submitted to the USEPA as a revision to its SIP in November 2007 (CARB 2007) and has adopted the *2022 State SIP Strategy* in September 2022 (CARB 2022). In addition, CARB requires regions that do not meet California AAQS for ozone to submit clean air plans that describe measures to attain the standard or show progress toward attainment. To ensure federal CAA compliance, SJVAPCD is currently developing plans for meeting new National AAQS for PM_{2.5} in the SJVAB (SJVAPCD 2024a). The following describes the air plans prepared by the SJVAPCD, which are incorporated by reference per CEQA Guidelines Section 15150.

1-Hour Ozone Plan

Although EPA revoked its 1979 one-hour ozone standard in June 2005, many planning requirements remain in place. SJVAPCD adopted the *2023 Maintenance Plan and Redesignation Request for the Revoked 1-Hour Ozone Standard* and has been in attainment for the revoked 1-hour ozone NAAQS of 124 ppb since 2014. The SJVAPCD is the first and only region in the nation designated as an extreme nonattainment for an ozone standard to attain the 1-hour ozone NAAQS (SJVAPCD 2023). On July 18, 2016, the EPA published a final action determining that the Valley has attained the 1-hour ozone national ambient air quality standard based on the certified data for the period 2012 to 2014 (Federal Register 2016).

8-Hour Ozone Plan

The SJVAPCD's Governing Board adopted the *2016 Ozone Plan* on June 16, 2016, to address the federal mandates related to the 2008 8-hour ozone NAAQS. The measures and strategic document in this *2016 Ozone Plan* will reduce NO_x emissions by over 60 percent between 2012 and 2031 to bring the Valley into attainment status (SJVAPCD 2016a). The SJVAPCD also adopted the *2022 Plan for the 2015 8-Hour Ozone Standard* on December 15, 2022. This Plan satisfies Clean Air Act requirements and ensures expeditious attainment of the 70 parts per billion 8-hour ozone standard (SJVAPCD 2022).

PM₁₀ Plan

Based on PM₁₀ measurements from 2003 to 2006, the EPA found that the SJVAB has reached federal PM₁₀ standards. On September 21, 2007, the SJVAPCD's Governing Board adopted the *2007 PM₁₀ Maintenance Plan and Request for Redesignation*, which demonstrates that the SJVAB will continue to meet the PM₁₀ standard (SJVAPCD 2007). The EPA approved the document and on September 25, 2008, the SJVAB was redesignated to attainment/maintenance (SJVAPCD 2015a).

PM_{2.5} Plan

SJVAPCD adopted the *2015 Plan for the 1997 PM_{2.5} Standard* on April 16, 2015, to achieve attainment for the EPA 1997 annual and 24-hour PM_{2.5} standards by the end of 2020 (SJVAPCD 2015b). SJVAPCD also adopted the *2016 Moderate Area Plan for the 2012 PM_{2.5} Standard* on September 15, 2016, which demonstrates attainment impracticability and requests a new 2012 Annual PM_{2.5} attainment deadline of 2025 (SJVAPCD 2016b). Per the *2024 Plan for the 2012 Annual PM_{2.5} Standard*, SJVAPCD demonstrates expeditious attainment of the 2012 PM_{2.5} National AAQS standard by 2030 (SJVAPCD 2024b).

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On August 19, 2021, the SJVAPCD approved *the Attainment Plan Revision for the 1997 Annual PM_{2.5} Standards* to establish a new attainment target for 1997 annual PM_{2.5} standard (SJVAPCD 2021). Based on implementation of the control strategy in *2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards (2018 PM_{2.5} Plan)* that was adopted on December 20, 2012, modeling has shown that the Valley would attain the 1997 annual PM_{2.5} standard by the attainment date of 2023. The *2018 PM_{2.5} Plan* demonstrates attainment of multiple National AAQS for PM_{2.5} as expeditiously as practicable through a comprehensive strategy of stronger control measures (SJVAPCD 2018). The EPA has taken a number of actions to approve portions of the *2018 PM_{2.5} Plan* and continues to work with SJVAPCD and CARB to approve the remaining *2018 PM_{2.5} Plan* elements. All of the above-referenced plans include measures (i.e., federal, State, and local) that would be implemented through rule making or program funding to reduce air pollutant emissions in the SJVAB.

Applicable SJVAPCD Rules and Regulations

Assembly Bill 170, Reyes

AB 170 was adopted by State lawmakers in 2003, creating Government Code Section 65302.1, which requires cities and counties in the SJVAB to amend their general plans to include data, analysis, and comprehensive goals, policies, and feasible implementation strategies designed to improve air quality. The elements to be amended include, but are not limited to, elements dealing with land use, circulation, housing, conservation, and open space. Section 65302.1.c identifies four areas of air quality discussion required in these amendments:

- A report describing local air quality conditions, attainment status, and State and federal air quality and transportation plans.
- A summary of local, district, State, and federal policies, programs, and regulations to improve air quality.
- A comprehensive set of goals, policies, and objectives to improve air quality.
- Feasible implementation measures designed to achieve these goals.

SJVAPCD Indirect Source Review Rule 9510

On December 15, 2005, SJVAPCD adopted the Indirect Source Review Rule (ISR or Rule 9510) to reduce ozone precursors (i.e., VOC and NO_x) and PM₁₀ emissions from new land use development projects (SJVAPCD 2005). Specifically, Rule 9510 targets the indirect emissions from vehicles and construction equipment associated with these projects and applies to both construction and operational-related impacts. The rule applies to any applicant that seeks to gain a final discretionary approval for a development project, or any portion thereof, which upon full buildout would include any one of the following:

- 50 residential units.
- 2,000 square feet of commercial space.
- 25,000 square feet of light industrial space.
- 100,000 square feet of heavy industrial space.
- 20,000 square feet of medical office space.

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- 39,000 square feet of general office space.
- 9,000 square feet of educational space.
- 10,000 square feet of government space.
- 20,000 square feet of recreational space.
- 9,000 square feet of space not identified above.
- Transportation/transit projects with construction exhaust emissions of two or more tons of NO_x or two or more tons of PM₁₀.
- Residential projects on contiguous or adjacent property under common ownership of a single entity in whole or in part, that is designated and zoned for the same development density and land use, regardless of the number of tract maps, and has the capability of accommodating more than 50 residential units.
- Nonresidential projects on contiguous or adjacent property under common ownership of a single entity in whole or in part, that is designated and zoned for the same development density and land use, and has the capability of accommodating development projects that emit two or more tons per year of NO_x or PM₁₀ during project operations.

The rule requires all subject, nonexempt projects⁴ to mitigate both construction and operational period emissions by (1) applying feasible SJVAPCD-approved mitigation measures, or (2) paying any applicable fees to support programs that reduce emissions. Off-site emissions reduction fees (off-site fees) are required for projects that do not achieve the required emissions reductions through on-site emission reduction measures. Phased projects can defer payment of fees in accordance with an Off-Site Emissions Reduction Fee Deferral Schedule approved by the SJVAPCD.

To determine how an individual project would satisfy Rule 9510, each project would submit an air quality impact assessment (AIA) to the SJVAPCD as early as possible, but no later than prior to the project's final discretionary approval, to identify the project's baseline unmitigated emissions inventory for indirect sources: on-site exhaust emissions from construction activities and operational activities from mobile and area sources of emissions (excludes fugitive dust and permitted sources).⁵ Rule 9510 requires the following reductions, which are levels that the SJVAPCD has identified as necessary, based on their air quality management plans, to reach attainment for ozone and particulate matter:

- **Construction Equipment Emissions.** The exhaust emissions for construction equipment greater than 50 horsepower (hp) used or associated with the development project shall be reduced by the following amounts from the statewide average as estimated by CARB:
 - 20 percent of the total NO_x emissions
 - 45 percent of the total PM₁₀ exhaust emissions

⁴ Development projects that have a mitigated baseline below 2 tons per year of NO_x and 2 tons per year of PM₁₀ are exempt.

⁵ Stationary sources of air pollutant emissions are covered separately under SJVAPCD's Rule 2201, New and Modified Stationary Source Review.

Mitigation measures may include those that reduce construction emissions on-site by using less-polluting construction equipment, which can be achieved by utilizing add-on controls, cleaner fuels, or newer, lower emitting equipment.

▪ **Operational Emissions.**

- *NO_x Emissions.* Applicants shall reduce 33.3 percent of the project's operational baseline NO_x emissions over a period of 10 years as quantified in the approved AIA.
- *PM₁₀ Emissions.* Applicants shall reduce of 50 percent of the project's operational baseline PM₁₀ emissions over a period of 10 years as quantified in the approved AIA.

These requirements can be met through any combination of on-site emission reduction measures. In the event that a project cannot achieve the above standards through imposition of mitigation measures, then the project would be required to pay the applicable off-site fees. These fees are used to fund various incentive programs that cover the purchase of new equipment, engine retrofit, and education and outreach.

New and Modified Stationary Source Review

SJVAPCD adopted Rule 2201, *New and Modified Stationary Source Review*, to control emissions from new stationary sources and all modifications to existing stationary sources which are subject to SJVAPCD's permit requirements (i.e., "permit projects" for which the SJVAPCD is the lead agency). Permit projects that exceed the Source Performance Standards are required to install Best Available Control Technology to control emissions to the maximum extent practicable.

Fugitive PM₁₀ Prohibitions

SJVAPCD controls fugitive PM₁₀ through Regulation VIII, *Fugitive PM₁₀ Prohibitions*. The purpose of this regulation is to reduce ambient concentrations of PM₁₀ and PM_{2.5} by requiring actions to prevent, reduce, or mitigate anthropogenic (human caused) fugitive dust emissions.

- **Regulation VIII, Rule 8021** applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on-site, and travel on access roads to and from the site.
- **Regulation VIII, Rule 8031** applies to the outdoor handling, storage, and transport of any bulk material.
- **Regulation VIII, Rule 8041** applies to sites where carryout or trackout has occurred or may occur on paved roads or the paved shoulders of public roads.
- **Regulation VIII, Rule 8051** applies to any open area having 0.5 acre or more within urban areas or 3.0 acres or more within rural areas, and contains at least 1,000 square feet of disturbed surface area.
- **Regulation VIII, Rule 8061** applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.
- **Regulation VIII, Rule 8071** applies to any unpaved vehicle/equipment traffic area.
- **Regulation VIII, Rule 8081** applies to off-field agricultural sources.

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Sources regulated are required to provide Dust Control Plans that meet the regulation requirements. Under Rule 8021, a Dust Control Plan is required for any residential project that will include 10 or more acres of disturbed surface area, a nonresidential project with 5 or more acres of disturbed surface area, or a project that relocates 2,500 cubic yards per day of bulk materials for at least three days. The Dust Control Plan is required to be submitted to SJVAPCD prior to the start of any construction activity. The Dust Control Plan must also describe fugitive dust control measure to be implemented before, during, and after any dust-generating activity. For sites smaller than those listed above, the project is still required to notify SJVAPCD a minimum of 48 hours prior to commencing earth-moving activities.

Visible Emissions

SJVAPCD Rule 4101, *Visible Emissions*, prohibits the emissions of visible air contaminants to the atmosphere from any source operation which may emit air contaminants.

Architectural Coatings

SJVAPCD Rule 4601, *Architectural Coatings*, limits the VOC emissions that are emitted from architectural coatings based on specifications for architectural coatings storage, cleanup, and labeling requirements.

Nuisance Odors

SJVAPCD controls nuisance odors through implementation of Rule 4102, *Nuisance*. Pursuant to this rule, “a person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such person or the public or which cause or have a natural tendency to cause injury or damage to business or property.”

Employer Based Trip Reduction Program

SJVAPCD has implemented Rule 9410, Employer Based Trip Reduction. The purpose of this rule is to reduce VMT from private vehicles used by employees to commute to and from their worksites to in turn reduce emissions of NO_x, VOC, and particulate matter (PM₁₀ and PM_{2.5}). The rule applies to employers with at least 100 employees. Employers are required to implement an Employer Trip Reduction Implementation Plan (ETRIP) for each worksite with 100 or more eligible employees to meet applicable targets specified in the rule. Employers are required to facilitate the participation of the development of ETRIPs by providing information to its employees explaining the requirements and applicability of this rule. Employers are required to prepare and submit an ETRIP for each worksite to the District. The ETRIP must be updated annually. Under this rule, employers shall collect information on the modes of transportation used for each eligible employee's commutes both to and from work for every day of the commute verification period, as defined by using either the mandatory commute verification method or a representative survey method. Annual reporting includes the results of the commute verification for the previous calendar year along with the measures implemented as outlined in the ETRIP and, if necessary, any updates to the ETRIP.

AB 617, Community Air Protection Program

AB 617 (C. Garcia, Chapter 136, Statutes of 2017) requires local air districts to monitor and implement air pollution control strategies that reduce localized air pollution in communities that bear the greatest burdens. In response to AB 617, CARB has established the Community Air Protection Program.

Air districts are required to host workshops to help identify communities that are disproportionately affected by poor air quality. Once the criteria have been set for identifying the highest priority locations and the communities have been selected, new community monitoring systems will be installed to track and monitor community-specific air pollution goals. In 2018 CARB prepared an air monitoring plan (Community Air Protection Blueprint) that evaluates the availability and effectiveness of air monitoring technologies and existing community air monitoring networks. Under AB 617, the Blueprint is required to be updated every five years.

Under AB 617, CARB is also required to prepare a statewide strategy to reduce TACs and criteria pollutants in impacted communities; provide a statewide clearinghouse for best available retrofit control technology; adopt new rules requiring the latest best available retrofit control technology for all criteria pollutants for which an area has not achieved attainment of California AAQS; and provide uniform, statewide reporting of emissions inventories. Air districts are required to adopt a community emissions reduction program to achieve reductions for the communities impacted by air pollution that CARB identifies.

Local Regulations

Lodi Municipal Code

Chapter 18.16: Smoking Pollution Control

This chapter aims to protect the public health and welfare by prohibiting smoking in specified public places by regulating smoking in places of employment; and to strike a reasonable balance between the needs of smokers and the need of nonsmokers to breathe smokefree air. Smoking shall be prohibited in all enclosed public places within the city.

Chapter 13.12: Sewer Service

These wastewater discharge regulations set uniform requirements for discharges of domestic, industrial waste and storm drainage water into the city sewerage system to enable the city to comply with the administrative provisions of the Clean Water Grant Regulations, water quality requirements set by the Regional Water Quality Control Board and the applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards, and any other discharge criteria which are required or authorized by state or federal law. No person shall discharge air pollution by the release of toxic or malodorous gases or malodorous gas-producing substances into the city's sewerage system.

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Chapter 15.18: Green Building Code

The city adopted the 2022 California Green Building Standard Code (Green Building Code) and a copy of the Green Building Code is maintained by the city building official. 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.

Chapter 15.34: Growth Management Plan for Residential Development

This chapter aims to establish various policies to govern the future growth and development of the city. It is further the purpose of this chapter to provide for increased housing opportunities for all segments of society and to promote and protect the public health, safety, and welfare by regulating the future use and development of land in the city. This chapter relates to air quality since rapid growth without a growth management plan may produce negative impacts upon housing, traffic, parks, air quality, water, aesthetics, and the general quality of life of city residents.

Chapter 17.14: General Property Development and Use Standards

This chapter addresses the details of site planning and project design in the city. These standards are intended to ensure that all development produces an environment of desirable character that is compatible with existing and future development, and protects the use and enjoyment of neighboring properties, consistent with the General Plan. All land uses activities, and processes shall be operated and maintained so as to not be injurious to public health, safety or welfare. No visible dust, gases, or smoke shall be emitted, except as necessary for the heating or cooling of structures, and the operation of motor vehicles on the site. No obnoxious odors or fumes shall be emitted that are perceptible without instruments by a reasonable person at the property line of the site.

City of Lodi Climate Action Plan

The City's Climate Action Plan (CAP) was adopted in November 20, 2014 as part of the General Plan process to serve as a guide for a communitywide effort to increase energy and resource efficiency, while following the State of California's guidance regarding the reduction of GHG emissions. This CAP provides a strategic framework for the development of measures, policies and programs across all sectors that aim to reduce GHG emissions resulting from communitywide and municipal government operations within city limits. The five main reduction strategies are building energy efficiency, transportation, water and wastewater, solid waste, and green infrastructure.

The majority of reductions come from energy efficiency improvements (43 percent), transportation strategies (37 percent), and management strategies (20 percent). Beyond reducing GHG emissions many recommended CAP measures and actions have the potential to provide additional benefits for the community. For example, multiple CAP Energy Efficiency measures would provide co-benefits in improved air quality.

These measures for community-wide reductions were projected to reach the efficiency based emissions target of 4.5 MTCO₂e (metric tons of CO₂ equivalence)/service population/year by 2020 and 3.0 MTCO₂e/service population/year. This CAP does not address the steps needed to achieve reduction

goals beyond 2030 since the existing General Plan planning horizon extends only to 2030. However, the City will regularly reevaluate its long-term emissions reduction goals to respond to future circumstances. The CAP also offers implementation and performance evaluation strategies to monitor whether the implementation of a measure is on track to achieve the GHG reduction goals (Lodi 2014).

4.1.1.4 EXISTING CONDITIONS

San Joaquin Valley Air Basin

Lodi is in the far northwest portion of the SJVAB between Stockton and Sacramento. The SJVAB consists of eight counties: Fresno, Kern (western and central), Kings, Tulare, Madera, Merced, San Joaquin, and Stanislaus. Air pollution from significant activities in the SJVAB includes a variety of industrial-based sources as well as on- and off-road mobile sources. These sources, coupled with geographical and meteorological conditions unique to the area, stimulate the formation of unhealthy air.

The SJVAB is approximately 250 miles long and an average of 35 miles wide. It is bordered by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. There is a slight downward elevation gradient from Bakersfield in the southeast end (elevation 408 feet) to sea level at the northwest end where the valley opens to the San Francisco Bay at the Carquinez Straits. At its northern end is the Sacramento Valley, which comprises the northern half of California's Central Valley. The bowl-shaped topography inhibits movement of pollutants out of the valley (SJVAPCD 2015a).

Climate

The SJVAB is in a Mediterranean climate zone and is influenced by a subtropical high-pressure cell most of the year. Mediterranean climates are characterized by sparse rainfall that occurs mainly in winter. Summers are hot and dry. Summertime maximum temperatures often exceed 100 degrees Fahrenheit (°F) in the valley.

The subtropical high-pressure cell is strongest during spring, summer, and fall and produces subsiding air, which can result in temperature inversions in the valley. A temperature inversion can act like a lid, inhibiting vertical mixing of the air mass at the surface. Any emissions of pollutants can be trapped below the inversion. Most of the surrounding mountains are above the normal height of summer inversions (1,500 to 3,000 feet).

Winter-time high pressure events can often last many weeks, with surface temperatures often lowering to 30°F. During these events, fog can be present and inversions are extremely strong. These wintertime inversions can inhibit vertical mixing of pollutants to a few hundred feet (SJVAPCD 2015a).

Wind Patterns

Wind speed and direction play an important role in dispersion and transport of air pollutants. Wind at the surface and aloft can disperse pollution by mixing and transporting it to other locations. Especially in summer, winds in the valley most frequently blow from the northwest. The region's topographic features restrict air movement and channel the air mass towards the southeastern end of the valley. Marine air can flow into the basin from the San Joaquin River Delta and over Altamont Pass and Pacheco Pass, where it can

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flow along the axis of the valley, over the Tehachapi pass, into the Southeast Desert Air Basin. This wind pattern contributes to transporting pollutants from the Sacramento Valley and the Bay Area into the SJVAB.

The Coastal Range is a barrier to air movement to the west, and the high Sierra Nevada range is a significant barrier to the east (the highest peaks in the southern Sierra Nevada reach almost halfway through the Earth's atmosphere). Many days in the winter are marked by stagnation events where winds are very weak. Transport of pollutants during winter can be very limited. A secondary but significant summer wind pattern is from the southeast and can be associated with nighttime drainage winds, prefrontal conditions, and summer monsoons.

Two significant diurnal wind cycles that occur frequently in the valley are the sea breeze and mountain-valley upslope and drainage flows. The sea breeze can accentuate the northwest wind flow, especially on summer afternoons. Nighttime drainage flows can accentuate the southeast movement of air down the valley. In the mountains during periods of weak synoptic scale winds, winds tend to be upslope during the day and downslope at night. Nighttime and drainage flows are especially pronounced during the winter when flow from the easterly direction is enhanced by nighttime cooling in the Sierra Nevada. Eddies can form in the valley wind flow and can recirculate a polluted air mass for an extended period (SJVAPCD 2015a).

Temperature

Solar radiation and temperature are particularly important in the chemistry of ozone formation. The SJVAB averages over 260 sunny days per year. Photochemical air pollution (primarily ozone) is produced by the atmospheric reaction of organic substances (such as VOCs) and nitrogen dioxide under the influence of sunlight. Ozone concentrations are very dependent on the amount of solar radiation, especially during late spring, summer, and early fall. Ozone levels typically peak in the afternoon. After the sun goes down, the chemical reaction between nitrous oxide and ozone begins to dominate. This reaction tends to scavenge and remove the ozone in the metropolitan areas through the early morning hours, resulting in the lowest ozone levels, possibly reaching zero at sunrise in areas with high nitrogen oxides emissions. At sunrise, nitrogen oxides tend to peak, partly due to low levels of ozone at this time and also due to the morning commuter vehicle emissions of nitrogen oxides.

Generally, the higher the temperature, the more ozone forms, since reaction rates increase with temperature. However, extremely hot temperatures can “lift” or “break” the inversion layer. Typically, if the inversion layer does not lift to allow the buildup of contaminants to be dispersed, the ozone levels will peak in the late afternoon. If the inversion layer breaks and the resultant afternoon winds occur, the ozone will peak in the early afternoon and decrease in the late afternoon as the contaminants are dispersed or transported out of the SJVAB. Ozone levels are low during winter periods when there is much less sunlight to drive the photochemical reaction (SJVAPCD 2015a).

Precipitation, Humidity, and Fog

Precipitation and fog may reduce or limit some pollutant concentrations. Ozone needs sunlight for its formation, and clouds and fog can block the required solar radiation. Wet fogs can cleanse the air during winter as moisture collects on particles and deposits them on the ground. Atmospheric moisture can also increase pollution levels. In fogs with less water content, the moisture acts to form secondary ammonium

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nitrate particulate matter. This ammonium nitrate is part of the valley's PM_{2.5} and PM₁₀ problem. The winds and unstable air conditions experienced during the passage of winter storms result in periods of low pollutant concentrations and excellent visibility. Between winter storms, high pressure and light winds allow cold moist air to pool on the SJVAB floor. This creates strong low-level temperature inversions and very stable air conditions, which can lead to tule fog. Wintertime conditions favorable to fog formation are also conditions favorable to high concentrations of PM_{2.5} and PM₁₀ (SJVAPCD 2015a).

Inversions

The vertical dispersion of air pollutants in the San Joaquin Valley can be limited by persistent temperature inversions. Air temperature in the lowest layer of the atmosphere typically decreases with altitude. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. The height of the base of the inversion is known as the "mixing height." This is the level to which pollutants can mix vertically. Mixing of air is minimized above and below the inversion base. The inversion base represents an abrupt density change where little air movement occurs.

Inversion layers are significant in determining pollutant concentrations. Concentration levels can be related to the amount of mixing space below the inversion. Temperature inversions that occur on the summer days are usually 2,000 to 2,500 feet above the valley floor. In winter months, overnight inversions occur 500 to 1,500 feet above the valley floor (SJVAPCD 2015a).

Attainment Status

The air quality management plans (AQMP) prepared by SJVAPCD provide the framework for SJVAB to achieve attainment of the State and federal AAQS through the SIP. Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet the ambient air quality standards. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

- **Unclassified.** A pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- **Attainment.** A pollutant is in attainment if the AAQS for that pollutant was not violated at any site in the area during a three-year period.
- **Nonattainment.** A pollutant is in nonattainment if there was at least one violation of an AAQS for that pollutant in the area.
- **Nonattainment/Transitional.** A subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

At the federal level, the SJVAPCD is designated as extreme nonattainment for the 8-hour ozone standard, attainment for PM₁₀ and CO, and nonattainment for PM_{2.5}. At the State level, the SJVAB is designated nonattainment for the 8-hour ozone, PM₁₀, and PM_{2.5} standards. The attainment status for the SJVAB with respect to various pollutants of concern is displayed in Table 4.1-4, *Attainment Status of Criteria Pollutants in the SJVAB*.

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TABLE 4.1-4 ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SJVAB

Pollutant	Federal	State
Ozone – 1-hour	Revoked in 2005 ¹	Nonattainment/Severe
Ozone – 8-hour	Nonattainment/Extreme ²	Nonattainment
Respirable Particulate Matter (PM ₁₀)	Attainment ³	Nonattainment
Fine Particulate Matter (PM _{2.5})	Nonattainment ⁴	Nonattainment
Carbon Monoxide (CO)	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide (NO ₂)	Attainment/Unclassified	Attainment
Sulfur Dioxide (SO ₂)	Attainment/Unclassified	Attainment
Lead	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

Source: CARB 2024b.

Notes:

1. Effective June 15, 2005, the EPA revoked the federal 1-hour ozone standard, including associated designations and classifications. On July 18, 2016, the EPA determined the SJVAB to be in attainment.

2. Though the SJVAB was initially classified as serious nonattainment for the 1997 8-hour ozone standard, the EPA approved reclassification of SJVAB to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).

3. The EPA redesignated the SJVAB to attainment and approved the PM₁₀ Maintenance Plan on September 25, 2008.

4. The EPA designated the SJVAB as nonattainment on November 13, 2009 (effective December 14, 2009).

Existing Ambient Air Quality

CARB, in cooperation with SJVAPCD, monitors air quality throughout the SJVAB. The Stockton–University Park Monitoring Station closest to the General Plan Area monitors O₃, NO₂, PM₁₀, and PM_{2.5}. Table 4.1-5, *Ambient Air Quality Monitoring Summary*, shows regular violations of the State PM₁₀ and federal PM_{2.5} standard and occasional violation of the State and federal O₃ standards in the last four years.

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TABLE 4.1-5 AMBIENT AIR QUALITY MONITORING SUMMARY

Pollutant/Standard ¹	Number of Days Threshold were Exceeded and Maximum Levels During Such Violations			
	2020	2021	2022	2023
Ozone (O₃)				
State 1-Hour ≥ 0.09 ppm	*	0	1	0
State & Federal 8-hour ≥ 0.07 ppm	*	0	1	0
Maximum 1-Hour Conc. (ppm)	*	0.040	0.141	0.086
Maximum 8-Hour Conc. (ppm)	*	0.036	0.113	0.068
Nitrogen Dioxide (NO₂)				
State 1-Hour ≥ 0.18 (ppm)	*	0	0	0
Maximum 1-Hour Conc. (ppb)	*	0.0340	0.0442	0.0450
Coarse Particulates (PM₁₀)				
State 24-Hour > 50 µg/m ³	*	3	24	23
Federal 24-Hour > 150 µg/m ³	*	0	0	0
Maximum 24-Hour Conc. (µg/ m ³)	*	69.5	80.6	81.7
Fine Particulates (PM_{2.5})				
Federal 24-Hour > 35 µg/m ³	*	1	6	6
Maximum 24-Hour Conc. (µg/m ³)	*	39.5	51.9	40.6

Source: CARB 2024c.

Notes: ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter; * = insufficient data/not available

1. Data obtained from the Stockton–University Park Monitoring Station for O₃, NO_x, PM₁₀, and PM_{2.5}.

Existing Emissions

The General Plan Area consists of commercial, retail, industrial, and institutional land uses and single- and multifamily residences. These uses currently generate criteria air pollutant emissions from natural gas use for energy, heating, and cooking; vehicle trips associated with each land use; and area sources such as landscaping equipment and consumer cleaning products. Table 4.1-6, *Existing General Plan Area Regional Criteria Air Pollutant Emissions Inventory*, identifies the existing criteria air pollutant emissions based on existing land uses in the General Plan Area with 2020 emission rates.⁶

TABLE 4.1-6 EXISTING GENERAL PLAN AREA REGIONAL CRITERIA AIR POLLUTANT EMISSIONS INVENTORY

Sector	Tons per Year					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Transportation ¹	5	51	156	1	1	1
Energy ²	5	81	49	1	6	6
Offroad Equipment ³	88	281	1,287	<1	16	14
Consumer Products ⁴	187	—	—	—	—	—
Total	284	412	1,492	1	23	22

Source: Appendix B.

Notes:

1. EMFAC2021 Version 1.0.2. Based on daily VMT provided by Fehr & Peers .

2. Based on natural gas use provided by PG&E.

3. OFFROAD2021 Version 1.0.7.

4. Based on CalEEMod, Version 2022.1 User’s Guide methodology to calculate VOC emissions from use of household consumer cleaning products.

⁶ Table 4.1-6 excludes stationary sources of emissions. Stationary sources of air pollution—including complex sources such as metal smelting, wastewater treatment plants, and refineries as well as smaller facilities such as diesel generators, gasoline dispensing facilities, and boilers—are regulated and subject to permit conditions established by the SJVAPCD.

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Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. Disadvantaged communities identified by CalEnviroScreen 4.0 (i.e., environmental justice communities) may be disproportionately affected by and vulnerable to poor air quality.^{7, 8} The CalEnviroScreen cumulative score is a cumulative measure of overall environmental justice burden based on 24 indicators, including pollution, social, and health indicators, four of which are specifically having to do with air quality or air pollution.

Residential areas are also considered sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent because the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

4.1.2 STANDARDS OF SIGNIFICANCE

As the lead agency, the City of Lodi has determined that a project would result in significant air quality impacts if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. 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.
3. Expose sensitive receptors to substantial pollutant concentrations.
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.
5. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to air quality.

⁷ Under Senate Bill 535, disadvantaged communities are defined as the top 25% scoring areas from CalEnviroScreen along with other areas with high amounts of pollution and low populations.

⁸ CalEnviroScreen 4.0. Indicator Maps can be found at: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>.

4.1.2.1 SJVAPCD THRESHOLDS

As stated in Appendix G, *Environmental Checklist Form*, of the CEQA Guidelines, the significance criteria established by the applicable air quality management district may be relied on to make the above determinations. Thus, this analysis also evaluates the project's air quality impacts pursuant to SJVAPCD's recommended guidelines and thresholds of significance, as discussed further below.

The SJVAPCD has developed the *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI) and recently adopted the latest version on February 19, 2015 (SJVAPCD 2015a). The current GAMAQI represents the latest guidance for addressing air quality impacts in the SJVAB. Changes to the GAMAQI are primarily administrative in nature to update SJVAB basin information, attainment status, and general guidance to reflect updated conditions. The following thresholds of significance from the SJVAPCD's GAMAQI are used to determine whether a proposed project would result in a significant air quality impact.

Regional Significance Thresholds

SJVAPCD has identified regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SJVAB. Specifically, these thresholds gauge whether a project would significantly contribute to a nonattainment designation based on the mass emissions generated. Mass emissions from a project are not correlated with concentrations of air pollutants. Table 4.1-7, *SJVAPCD Regional Criteria Air Pollutants Significance Thresholds*, lists SJVAPCD's regional significance thresholds. It should be noted that SJVAPCD Rule 9510 and Regulation VIII may not reduce project-specific construction and operational emissions to below the SJVAPCD thresholds.

TABLE 4.1-7 SJVAPCD REGIONAL CRITERIA AIR POLLUTANTS SIGNIFICANCE THRESHOLDS

Pollutant	Construction and Operational Phase Significance Thresholds (Tons/Year)
Carbon Monoxide (CO)	100
Nitrous Oxide (NO _x)	10
Volatile Organic Compounds (VOC)	10
Sulfur Oxides (SO _x)	27
Coarse Particulate Matter (PM ₁₀)	15
Fine Particulate Matter (PM _{2.5})	15

Source: SJVAPCD 2015a.

Projects that exceed the regional significance threshold contribute to the nonattainment designation of the SJVAB. The attainment designations are based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health effects. SJVAPCD is the primary agency responsible for ensuring the health and welfare of sensitive individuals exposed to elevated concentrations of air pollutants in the SJVAB and has established thresholds that would be protective of these individuals. To achieve the health-based standards established by the EPA, SJVAPCD prepares AQMPs that detail regional programs to attain the AAQS.

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Mass emissions in Table 4.1-7 are not correlated with concentrations of air pollutants but contribute to the cumulative air quality impacts in the SJVAB. The thresholds are based on the trigger levels for the federal New Source Review Program, which was created to ensure projects are consistent with attainment of health-based federal AAQS. Regional emissions from a single project do not single-handedly trigger a regional health impact, and it is speculative to identify how many more individuals in the SJVAB would be affected by the health effects listed below. Projects that do not exceed the SJVAB regional significance thresholds in Table 4.1-7 would not violate any air quality standards or contribute substantially to an existing or projected air quality violation.

If projects exceed the emissions in Table 4.1-7, emissions would cumulatively contribute to the nonattainment status and would contribute to elevating the associated health effects. Known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Health effects associated with particulate matter include premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Reducing emissions would further contribute to reducing possible health effects related to criteria air pollutants. However, for projects that exceed the emissions in Table 4.1-7, it is speculative to determine how this would affect the number of days the region is in nonattainment—since mass emissions are not correlated with concentrations of emissions—or how many additional individuals in the SJVAB would be affected.

SJVAPCD has not provided methodology to assess the specific correlation between mass emissions generated and the effect on health that is needed to address the issue raised in *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, Case No. S21978 (known as “Friant Ranch”). Ozone concentrations depend on a variety of complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Because of the complexities of predicting ground-level ozone concentrations in relation to the National AAQS and California AAQS, it is not possible to link health risks to the magnitude of emissions exceeding the significance thresholds. However, if a project in the SJVAB exceeds the regional significance thresholds, the project could contribute to an increase in health effects in the basin until the attainment standard is met in the SJVAB.

Ambient Air Quality Analysis

The need to perform air quality dispersion modeling for typical urban development projects is determined on a case-by-case basis, depending on project size. SJVAPCD applies the following guidance in determining whether an ambient air quality analysis should be conducted for development projects. Compliance with Rule 9510 (Indirect Source Review) frequently reduces project-specific emissions to less than significant levels. However, for large construction projects, additional mitigation may be required. SJVAPCD recommends that an ambient air quality analysis be performed for all pollutants when on-site emissions of any criteria pollutant from construction activities would equal or exceed any applicable threshold of significance for criteria pollutants, or 100 pounds per day of any criteria pollutant, after compliance with Rule 9510 requirements and implementation of all enforceable mitigation measures. Similarly, SJVAPCD also recommends that an ambient air quality analysis be performed for all criteria pollutants when emissions of any criteria pollutant resulting from project operational activities exceed the 100 pounds per day screening

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level, after compliance with Rule 9510 requirements and implementation of all enforceable mitigation measures.

However, air dispersion modeling is not applicable at a program level. Consequently, for the purpose of this program-level SEIR, emissions of any criteria air pollutant that would exceed the applicable threshold of significance identified in Table 4.1-7 is considered to result in elevated concentrations of air pollutants that have the potential to exceed the AAQS. It should be noted that CO hotspot monitoring was previously required under the GAMAQI. However, emissions from motor vehicles, by far the largest source of CO emissions, have been declining since 1985 despite increases in VMT due to the introduction of new automotive emission controls and fleet turnover. Consequently, no CO hotspots have been reported in the SJVAB even at the most congested intersections.

Consistency with the Applicable Air Quality Plan

SJVAPCD has prepared plans to attain federal and State AAQS. The significance thresholds in Table 4.1-7 are based on SJVAPCD's New Source Review offset requirements for stationary sources. Emission reductions achieved through implementation of District offset requirements are a major component of SJVAPCD's air quality plans. Thus, projects with emissions below the thresholds of significance for criteria pollutants (see Table 4.1-7) would be determined to "not conflict or obstruct implementation of the District's air quality plan." Because dispersion modeling is not applicable for a program SEIR, projects with emissions that exceed these values are considered to have the potential to exceed the AAQS, resulting in a potentially significant impact.

Odors

Odor impacts associated with a proposed project would be considered significant if the project has the potential to frequently expose members of the public to objectionable odors. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, there are no quantitative or formulaic methodologies to determine if potential odors would have a significant impact. Rather, projects must be assessed on a case-by-case basis. As shown in Table 4.1-8, *SJVAPCD Screening Levels for Potential Odor Sources*, the SJVAPCD has identified buffer distances for common types of facilities that have been known to produce odors in the SJVAB. The intensity of odors could be significant and may be based on a review of SJVAPCD's complaint records.

TABLE 4.1-8 SJVAPCD SCREENING LEVELS FOR POTENTIAL ODOR SOURCES

Land Use/Type of Operation	Screening Distance
Wastewater Treatment Plan	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile

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TABLE 4.1-8 SJVAPCD SCREENING LEVELS FOR POTENTIAL ODOR SOURCES

Land Use/Type of Operation	Screening Distance
Fiberglass Manufacturing	1 mile
Painting/Coating Operations	1 mile
Food Processing Facility	1 mile
Feed Lot/ Dairy	1 mile
Rendering Plant	1 mile

Source: SJVAPCD 2015a.

For a project locating near an existing source of odors, in *California Building Industry Association v. Bay Area Air Quality Management District* (CBIA), the California Supreme Court ruled that CEQA generally does not require an evaluation of impacts of the environment on a project unless a project will exacerbate an existing environmental hazard. As shown in Table 4.1-8, sensitive receptors such as residential, commercial, office, and institutional uses (such as the hospital land uses) would not be the types of land uses that are associated with generating substantial odors and would not be anticipated to exacerbate existing odor impacts. Thus, evaluation of this scenario is not considered in this SEIR.

Air Toxics

Whenever a project would require use of chemical compounds that have been identified in SJVAPCD's Rule 2201; placed on CARB's air toxics list pursuant to AB 1807, Toxic Air Contaminant Identification and Control Act (1983); or placed on the EPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is warranted.

Table 4.1-9, *SJVAPCD Toxic Air Contaminants Incremental Risk Thresholds*, lists TAC thresholds for operation of a project. As stated, under the CBIA ruling, though CEQA is generally not required to analyze impacts of the environment on a project, where a project will exacerbate an existing environmental hazard, CEQA requires an analysis of the worsened condition on future project residents and the public at large. However, projects that do not generate emissions that exceed the values in Table 4.1-9 would not substantially contribute to cumulative air quality hazards or exacerbate an existing environmental hazard. Residential, commercial, office, and institutional uses do not use substantial quantities of TACs and typically do not exacerbate existing hazards.

TABLE 4.1-9 SJVAPCD TOXIC AIR CONTAMINANTS INCREMENTAL RISK THRESHOLDS

Cancer Risk ¹	≥ 20 in 1 million
Hazard Index ²	≥ 1.0

Sources: SJVAPCD 2015a; SJVAPCD 2012.

Notes:

1. For the Maximum Exposed Individuals (MEI).

2. Ground-level concentrations of noncarcinogenic TACs for the MEI.

4.1.3 PROPOSED GENERAL PLAN POLICIES

Conservation Element

- **Policy C-P69:** 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
- **Policy C-P70:** Continue to require mitigation measures as a condition of obtaining permits to minimize dust and air emissions impacts from construction.
- **Policy C-P71:** 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 area
- **Policy C-P72:** Cooperate with other local, regional, and State agencies in developing and implementing air quality plans to achieve State and Federal Ambient Air Quality Standards and address cross-jurisdictional and regional transportation and air quality issues.
- **Policy C-P73:** Use the San Joaquin Valley Air Pollution Control District's (SJVAPCD) Guide for Assessing and Mitigating Air Quality Impacts for determining and mitigating project air quality impacts and related thresholds of significance for use in environmental documents. The City shall consult with the SJVAPCD during CEQA review for projects that require air quality impact analysis and ensure that the SJVAPCD is on the distribution list for all CEQA documents.
- **Policy C-P74:** 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.).
- **Policy C-P75:** 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: Circulation.
- **Policy C-P76:** Continue the program for assessing air quality mitigation fees for all new development, with the fees to be used to fund air quality programs..
- **Policy C-P77:** Require the use of natural gas or the installation of low-emission, EPA-certified fireplace inserts in all open hearth fireplaces in new homes. Promote the use of natural gas over wood products in space heating devices and fireplaces in all existing and new homes. Follow the guidelines set forth in San Joaquin Valley Air Pollution Control District's Rule 4901..

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- **Policy C-P78:** Review, support, and require implementation (as applicable) of San Joaquin Valley Air Pollution Control District guidance and recommendations (including those identified in the Guide for Assessing and Mitigating Air Quality Impacts) in regards to several key issues including:
 - Environmental Assessment;
 - Air Quality Mitigation Agreements;
 - Integrated Planning;
 - Air Quality Education;
 - Congestion Management/Transportation Control Measures;
 - Toxic and Hazardous Pollutant Emissions;
 - Fugitive Dust and PM₁₀ Emissions; and
 - Energy Conservation and Alternative Fuels.
- **Policy C-P79:** Require new sensitive uses proposed to be located within 500 feet of high volume traffic routes where daily vehicle counts exceed 100,000, to use an HVAC system with filtration to reduce/mitigate infiltration of vehicle emissions as warranted by exposure analysis.
- **Policy C-P80:** 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.
- **Policy C-P81:** Require projects that exceed the SJVAPCD's SPAL and AAQA screening criteria to evaluate project-specific operation emissions in conformance with SJVAPCD's GAMAQI, and if operation-related air pollutants exceed the SJVAPCD-adopted thresholds of significance, require the project applicants to mitigate the impact to an acceptable level.
- **Policy C-P82:** Require projects that exceed the SJVAPCD's screening sizes as described in the District's GAMAQI to evaluate project-specific construction emissions in conformance with the SJVAPCD's GAMAQI methodology and if construction-related criteria air pollutants exceed the SJVAPCD's thresholds of significance, require the project applicant to mitigate the impacts to an acceptable level.
- **Policy C-P 83:** Require applicants for industrial or warehousing land uses or commercial land uses that would generate substantial diesel truck travel (i.e., 100 diesel trucks per day or 40 or more trucks with diesel-powered transport refrigeration units per day) to contact SJVAPCD to determine the appropriate level of operational health risk assessment (HRA) required. If required, the operational HRA shall be prepared in accordance with the Office of Environmental Health Hazard Assessment (OEHHA) and SJVAPCD requirements and mitigated to an acceptable level.

Land Use Element

- **Policy LU-P2:** Require sites designated for mixed-use development—downtown, corridors, and in new neighborhood centers—to be developed with a variety of residential and non-residential uses, in accordance with the General Plan designation.

Transportation Element

- **Goal T-G4:** Provide safe and convenient pedestrian, bicycle, and transit circulation.
- **Goal T-G8:** Encourage reduction in vehicle miles traveled as part of a strategy to reduce greenhouse gas emissions.
- **Policy T-P10:** Exempt downtown from LOS standards to encourage infill development in order to create a pedestrian friendly urban design character and densities necessary to support transit, bicycling, and walking. Development decisions in downtown should be based on community design and livability goals rather than traffic LOS. (Downtown is defined by the Downtown Mixed-Use designation in the Land Use Diagram.
- **Policy T-P19:** To maintain walkability and pedestrian safety, consider roadway width and roadway design features such as islands, pedestrian refuges, pedestrian count-down signals, and other such mechanisms. This policy applies to new roadway construction as well as existing roadways where pedestrian safety issues may occur due to roadway design or width.
- **Policy T-P20:** In new development areas, include pedestrian connections to public transit systems, commercial centers, schools, employment centers, community centers, parks, senior centers and residences, and high-density residential areas.
- **Policy T-P21:** Work cooperatively with the Lodi Unified School District on a “safe routes to schools” program that aims to provide a network of safe, convenient, and comfortable pedestrian routes from residential areas to schools. Improvements may include expanded sidewalks, shade trees, bus stops, and connections to the extended street, bike, and transit network.
- **Policy T-P22:** Use the City’s Bike Master Plan as comprehensive method for implementing bicycle circulation, safety, and facilities development. Update the Plan to match bike route connections in new General Plan development areas.
- **Policy T-P23:** Coordinate the connection of local bikeways and trails to regional bikeways identified in the San Joaquin County Bicycle Transportation Plan.
- **Policy T-P24:** Require the placement of bicycle racks or lockers at park-and-ride facilities.
- **Policy T-P25:** Establish standards requiring new commercial and mixed-use developments (of sizes exceeding certain minimum thresholds) to provide shaded and convenient bicycle racks, as appropriate. When such facilities are required, use specifications provided in Caltrans’ Design Manual, Section 1000, or other appropriate standards.
- **Policy T-P26:** Implement the City’s Short Range Transit Plan and SJCOG’s Regional Transit Systems Plan, using the most cost effective methods available and based upon professional analysis.
- **Policy T-P27:** Review new development proposals for consistency with the Short Range Transit Plan. Ensure new projects provide needed transit facilities to serve developments and provide all needed facilities and/or contribute a fair share for improvements not covered by other funding sources.
- **Policy T-P28:** Continue to support the efficient operation of the Lodi Station, and to explore opportunities to expand the multi-modal transportation services provided there.

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- **Policy T-P29:** Encourage continued commuter rail service in Lodi by cooperating with Amtrak and supporting transit-oriented development and improvements around Lodi Station.
- **Policy T-P30:** Encourage ridership on public transit systems through marketing and promotional efforts. Provide information to residents and employees on transit services available for both local and regional trips.
- **Policy T-P31:** Maintain transit performance measures sufficient to meet State requirements.
- **Policy T-P32:** Coordinate transit services and transfers between the various transit operators serving Lodi.
- **Policy T-P33:** Require new development to provide transit improvements where appropriate and feasible, including direct pedestrian access to transit stops, bus turnouts and shelters, and local streets with adequate width to accommodate buses.
- **Policy T-P34:** Continue to actively support and manage the Lodi Grapeline bus service, and to expand public transit services when justified by new demand.
- **Policy T-P43:** Consider development of local park-and-ride facilities, particularly in conjunction with future rail and bus services, if the demand for such facilities is warranted and economically feasible.
- **Policy T-P44:** Provide park and ride facilities designed to accommodate public transit, van and carpooling users.
- **Policy T-P48:** Promote ridesharing and cooperate with regional travel demand management programs to reduce peak-hour traffic congestion and help reduce regional vehicle miles traveled.
- **Policy T-P49:** Promote employment opportunities within Lodi to reduce commuting to areas outside of Lodi.
- **Policy T-P50:** Continue to implement the *SB 743 Implementation Guidelines for City of Lodi January 2025* that reduces the total vehicle miles of traveled (VMT) by making efficient use of existing transportation facilities and by providing for more direct routes for pedestrians and bicyclists through the implementation of “smart growth” and sustainable planning principles.
- **Policy T-P51:** Periodically update the *City’s SB 743 Implementation Guidelines* to remain consistent with State standards, guidelines and regulations related to reduction of VMT.
- **Policy T-P52:** Within its *SB 743 Implementation Guidelines*, the City shall identify those types of projects for which VMT impacts are considered less-than-significant and shall also identify those types of projects that are likely to exceed the City’s VMT thresholds. Consistent with Policy T-P51, the *City’s SB 743 Guidelines* shall be periodically reviewed and updated as needed to maintain consistency with State VMT reduction guidance and regulations.
- **Policy T-P53:** Development projects shall be reviewed for consistency with the City’s then-current *SB 743 Implementation Guidelines*, as adopted at the time of development project review, or for consistency with any other VMT reduction criteria as may be adopted by the City and in effect at the time of project review.

- **Policy T-P54:** The City shall evaluate transportation improvement projects for consistency with the City's *SB 743 Implementation Guidelines* or other VMT reduction criteria as may be adopted by the City and in effect at the time of the transportation improvement project review.
- **Policy T-P55:** For projects determined to exceed the City's VMT thresholds pursuant to the City's then-current *SB 743 Implementation Guidelines* or any other VMT reduction criteria as may be adopted by the City and in effect during project review, the City shall require feasible mitigation measures to reduce VMT impacts from any and all VMT threshold exceedance(s) identified.

4.1.4 ENVIRONMENTAL IMPACTS

4.1.4.1 METHODOLOGY

This air quality evaluation was prepared in accordance with the requirements of CEQA to determine if significant air quality impacts are likely to occur in conjunction with future development that would be accommodated by the proposed project. SJVAPCD has published the GAMAQI that provides local governments with guidance for analyzing and mitigating air quality impacts and was used in this analysis. The General Plan Area's criteria air pollutant emissions inventory includes the following sectors:

- **Transportation:** Transportation emissions forecasts were modeled using emission rates from CARB's EMFAC2021, version 1.0.2 web database. Model runs were based on daily VMT data provided by Fehr & Peers and calendar year 2020 (existing conditions) and 2045 emission rates. The VMT provided is based on a transportation origin-destination (O-D) methodology and CARB's Regional Targets Advisory Committee (RTAC) recommended methodology established under SB 375. The RTAC methodology includes the full trip length for vehicle trips that both originate and terminate in the General Plan Area and 50 percent of the trip length for vehicle trips that either originate or terminate (but not both) in the General Plan Area. Consistent with CARB's methodology within the Climate Change Scoping Plan Measure Documentation Supplement, daily VMT was multiplied by 347 days per year—to account for reduced traffic on weekends and holidays—to determine annual emissions.
- **Building Energy:** Energy use for residential and nonresidential land uses in the General Plan Area were modeled using natural gas data provided by Pacific Gas and Electric Company (PG&E). Residential energy and non-residential energy forecasts from PG&E are adjusted for increases in housing units and employment, respectively.
- **Off-Road Equipment:** Emission rates from CARB's OFFROAD2021, version 1.0.7, web database were used to estimate criteria air pollutant emissions from light commercial and construction equipment in the General Plan Area. OFFROAD2021 is a database of equipment use and associated emissions for each county compiled by CARB. Emissions were compiled using OFFROAD2021 for the County of San Joaquin for year 2020. General Plan Area emissions from lawn and garden equipment is based on the percentage of housing units in City and SOI compared to San Joaquin County and forecasted for each based on growth of housing units. General Plan Area emissions attributable to light commercial/industrial equipment is estimated based on employment for City and SOI as a percentage of San Joaquin County and forecasted for each based on growth of employment. Construction equipment use is estimated based on housing permit data for City and SOI compared to San Joaquin County and assumes that construction emissions for the forecast year for each would be similar to

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historical levels. Agricultural equipment is based on the percentage of farmland in the City and SOI compared to the San Joaquin County and forecast for each based on the change in farmland acreage. Annual emissions are derived by multiplying daily emissions by 365 days.

- **Area Sources:** Area sources are based on the emission factors from the CalEEMod Users Guide for emissions generated from use of consumer products and cleaning supplies.

4.1.4.2 IMPACTS OF THE ENVIRONMENT ON A PROJECT

In 2016, the California Legislature passed Senate Bill 1000 (SB 1000), Planning for Healthy Communities Act, to incorporate Environmental Justice (EJ) into the local land use planning process. SB 1000 requires local governments to address pollution and other hazards that disproportionately impact low-income communities and communities of color in their jurisdictions. SB 1000 mandates that general plans address environmental justice but does not require CEQA analyses to address EJ issues. The proposed project addresses air quality and health risk impacts to sensitive land uses.

Buildout of the proposed land use plan under the proposed project could result in siting sensitive uses (e.g., residential) near sources of emissions (e.g., freeways, industrial uses, etc.). Developing new sensitive land uses near sources of emissions could expose persons that inhabit these sensitive land uses to potential air quality-related impacts. However, the purpose of this environmental evaluation is to identify the significant effects of the proposed project on the environment, not the significant effects of the environment on the proposed project. *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (Case No. S213478). Thus, CEQA does not require analysis of the potential environmental effects from siting sensitive receptors near existing sources, and this type of analysis is not provided in Section 4.1.3, *Impact Discussion*.

However, the approved project includes policies that would require design features to minimize air quality impacts and to achieve appropriate health standards. The following relevant and modified policies from the existing Lodi General Plan would minimize potential adverse air quality impacts.

- **Policy C-P69:** 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.
- **Policy C-P70:** Continue to require mitigation measures as a condition of obtaining permits to minimize dust and air emissions impacts from construction.
- **Policy C-P71:** 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.

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- **Policy C-P73:** Use the San Joaquin Valley Air Pollution Control District’s (SJVAPCD) Guide for Assessing and Mitigating Air Quality Impacts for determining and mitigating project air quality impacts and related thresholds of significance for use in environmental documents. The City shall consult with the SJVAPCD during CEQA review for projects that require air quality impact analysis and ensure that the SJVAPCD is on the distribution list for all CEQA documents.
- **Policy C-P74:** 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.).
- **Policy C-P75:** 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: Circulation.
- **Policy C-P77:** Require the use of natural gas or the installation of low-emission, EPA-certified fireplace inserts in all open hearth fireplaces in new homes. Promote the use of natural gas over wood products in space heating devices and fireplaces in all existing and new homes. Follow the guidelines set forth in San Joaquin Valley Air Pollution Control District’s Rule 4901.
- **Policy C-P78:** Review, support, and require implementation (as applicable) of San Joaquin Valley Air Pollution Control District guidance and recommendations (including those identified in the Guide for Assessing and Mitigating Air Quality Impacts) in regards to several key issues including:
 - Environmental Assessment;
 - Air Quality Mitigation Agreements;
 - Integrated Planning;
 - Air Quality Education;
 - Congestion Management/Transportation Control Measures;
 - Toxic and Hazardous Pollutant Emissions;
 - Fugitive Dust and PM10 Emissions; and
 - Energy Conservation and Alternative Fuels.
- **Policy C-P79:** Require new sensitive uses proposed to be located within 500 feet of high volume traffic routes where daily vehicle counts exceed 100,000, to use an HVAC system with filtration to reduce/mitigate infiltration of vehicle emissions as warranted by exposure analysis.
- **Policy C-P80:** Require industrial development adjacent to residential areas to provide buffers and institute setbacks intended to ensure land use compatibility in regards to potential Toxic Air Contaminant exposure.

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4.1.5 IMPACT DISCUSSION

AIR-1	Implementation of the proposed project would not conflict with or obstruct implementation of the SJVAPCD air quality plans.
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The 2009 EIR identified that implementation of the approved project would result in a cumulatively considerable net increase of criteria pollutants that might conflict with or violate an applicable air quality plan. The following describes potential air quality impacts of consistency with the SJVAPCD air quality plan from the implementation of the proposed project compared to the approved project.

A consistency determination plays an important role in local agency project review by linking local planning and individual projects to the AQMPs. It fulfills the CEQA goal of informing decision makers of the environmental effects of a project under consideration at a stage early enough to ensure that air quality concerns are fully addressed. It also provides the local agency (Lodi) with ongoing information as to whether they are contributing to the clean air goals of the AQMPs.

The regional emissions inventory for the SJVAB is compiled by SJVAPCD. Regional population, housing, and employment projections are developed by the San Joaquin Council of Governments (SJCOG) for the County's Regional Transportation Plan and Sustainable Communities Strategy (2022 RTP/SCS Plan) (SJCOG 2022). Growth forecasts are based, in part, on local jurisdictions' general plan land use designations. These projections form the foundation for the emissions inventory of the AQMP. Potential future development projects that are consistent with the local general plan are considered consistent with the air quality–related regional plans.

Typically, only new or amended general plan elements, specific plans, and major projects that have the potential to affect the regional population and employment forecasts need to undergo a consistency review. As discussed in Chapter 4.5, *Population and Housing*, the buildout under the proposed project would not exceed the regional 2045 SJCOG projections for population, housing, and jobs (see Table 4.5-7, *Comparison of 2045 SJCOG and General Plan Update Planning Horizon Projections*). As described under Section 4.1.1.3, *Regulatory Framework*, SJVAPCD has prepared several plans to attain the National and California AAQS. These regional air quality plans outline various control measures, such as reducing or offsetting emissions from construction and operations associated with land use developments. Consequently, potential future development projects that would occur in the buildout of the proposed project would be required to adhere to the SJVAPCD's control measures, rules, and regulations. Emission reductions achieved through implementation of SJVAPCD's New Source Review offset requirements are a major component of SJVAPCD's air quality plans. The established thresholds of significance for criteria pollutant emissions are based on SJVAPCD's offset requirements for stationary sources. Therefore, projects with emissions below the thresholds of significance for criteria pollutants would be determined to not conflict or obstruct implementation of the SJVAPCD's air quality plan.

As identified in Impact AIR-2a and Table 4.1-10, implementation of the proposed project would not generate a substantial increase in operational (long-term) criteria air pollutants compared to the approved project that would exceed the SJVAPCD's significance thresholds. Therefore, the proposed project would be consistent with SJVAPCD's AQMP.

Summary

Potential future buildout allowed under the proposed project would not result in a substantial increase in operational (long-term) criteria pollutant emissions compared to the approved project that would exceed the SJVAPCD's significance criteria (see Impact AIR-2a). Additionally, the proposed project would not result in growth exceeding the growth forecast under the approved project. Therefore, the proposed project would not result in new or substantially more severe significant impacts related to exceeding the emissions forecasts of the SJVAPCD's AQMPs than were analyzed for the approved project.

Level of Significance Without Mitigation: Impact AIR-1 would be less than significant.

AIR-2	Implementation of the proposed project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is in nonattainment under applicable federal or State ambient air quality standard.
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The 2009 EIR identified that the approved project would generate significant and unavoidable short-term emissions and long-term emissions that would exceed the SJVAPCD operational thresholds for particulate matter (PM₁₀ and PM_{2.5}). Given the amount of development associated with implementation of the approved project, it was reasonably assumed that some large-scale construction activity would exceed SJVAPCD's adopted construction thresholds associated with buildout of the approved project. Actual significance would be determined on a project-by-project basis as future development applications are submitted. These criteria air pollutant emission thresholds are project-level metrics adopted by SJVAPCD, which was used to evaluate the approved project at a program level.

The proposed project guides growth within the General Plan Area by designating land uses in the proposed land use diagram and through implementation of its goals and policies. New development would increase air pollutant emissions in the General Plan Area and contribute to the overall emissions inventory in the SJVAB. A discussion of health effects associated with air pollutant emissions generated by operational activities is included in Section 4.1.1.2, *Air Pollutants of Concern*. Before development can occur, it must be analyzed for conformance with the General Plan Update, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

AIR-2a: Operation (Long-Term Emissions)

Future operational (long-term) activities accommodated under the proposed project could generate a substantial increase in long-term criteria air pollutant emissions compared to the approved project that would exceed SJVAPCD's regional significance thresholds and cumulatively contribute to the nonattainment designations of the SJVAB.

Implementation of the proposed project would result in direct and indirect criteria air pollutant emissions from transportation, energy (e.g., natural gas use), and area sources (e.g., aerosols and landscaping equipment). Mobile-source criteria air pollutant emissions are based on the traffic analysis conducted by

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Fehr & Peers. The emissions forecast for the General Plan Area under the proposed project compared to approved project is shown in Table 4.1-10, *General Plan Area Criteria Air Pollutant Emissions Forecast*.

TABLE 4.1-10 GENERAL PLAN AREA CRITERIA AIR POLLUTANT EMISSIONS FORECAST

Year	Criteria Air Pollutants (Tons/Year)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Approved Project – Year 2045						
On-Road Transportation	1,328	17	81	<1	5	2
Energy	6	98	59	1	8	8
Offroad Equipment	96	273	1,498	<1	15	14
Consumer Products	249	—	—	—	—	—
Approved Project Land Uses Total	1,680	389	1,638	1	28	23
Proposed Project – Year 2045						
On-Road Transportation	1,264	17	77	<1	4	2
Energy	6	97	58	1	8	8
Offroad Equipment	96	272	1,482	<1	15	14
Consumer Products	246	—	—	—	—	—
Proposed Land Uses Total	1,611	386	1,618	1	27	23
Change in Emissions						
On-Road Transportation	-64	-1	-4	<1	-1	<1
Energy	<1	-1	-1	<1	<1	<1
Offroad Equipment	-1	<1	-16	<1	<1	<1
Consumer Products	-4	—	—	—	—	—
Net Change from Approved Project	-68	-3	-21	<1	-1	<1
SJVAPCD Threshold	10	10	100	27	15	15
Exceeds SJVAPCD Threshold?	No	No	No	No	No	No

Source: See Appendix B.

Note: Numbers may not add up due to rounding.

As shown in Table 4.1-10, development that could occur under the proposed project would generate operational (long-term) air pollutant emissions that would not exceed SJVAPCD's regional significance thresholds for all criteria air pollutants compared to the approved project. Therefore, the proposed project would not cumulatively contribute to the nonattainment designations of the SJVAB.

Furthermore, the proposed project contains Conservation (C) and Transportation (T) Element policies that require local planning and development decisions to consider impacts from emissions and to reduce those operational emissions. Policies C-P73 through C-P75 would ensure the use of SJVAPCD's GAMAQI during CEQA review and identification of specific project-level air quality mitigation measures. Policy C-P79 would help improve air quality for sensitive uses near high-volume roadways. Policies T-G8 and T-P48 (travel demand management strategies), T-G4 and TP-19 through TP-25 (promotion for bicycle and pedestrian accessibility), and T-P27 through TP-34 (encouragement of public transit) would help reduce VMT.

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Additionally, application of SJVAPCD Indirect Source Rule 9510 to future individual projects would also reduce NO_x and particulate matter emissions from mobile-source emissions.

Overall, operation of the development projects that could occur from implementation of the proposed project would not result in new or substantially more severe significant impacts related to exceeding the SJVAPD's regional significance thresholds nor cumulatively contribute to the nonattainment designations of the SJVAB than were analyzed in the approved project. However, implementation of the proposed project would still exceed the SJVAPCD significance thresholds for operation, as shown in Table 4.1-10. Accordingly, implementation of the proposed project could result in significant long-term regional air quality impacts.

Level of Significance Without Mitigation: Impact AIR-2a would be potentially significant.

Mitigation Measure AIR-2a: To reduce long-term increases in air pollutants during the operation phase for discretionary development projects that are subject to CEQA and which exceed the SJVAPCD's Small Projects Analysis Level (SPAL) and Ambient Air Quality Analysis (AAQA) screening criteria, the City shall adopt the following General Plan Program to support Policies C-P52 and C-P57 and implement it as part of the project approval process:

- **New Program:** Require projects that exceed the SJVAPCD's SPAL and AAQA screening criteria to evaluate project-specific operation emissions in conformance with SJVAPCD's GAMAQI, and if operation-related air pollutants exceed the SJVAPCD-adopted thresholds of significance, require the project applicants to mitigate the impact to an acceptable level.

Significance with Mitigation: Significant and unavoidable. Compliance with the policies and programs in the proposed project and implementation of Mitigation Measure AIR-2a would reduce impacts to the maximum extent feasible. However, regional and localized operational emissions could exceed the SJVAPCD's significance thresholds and thus could cumulatively contribute to the nonattainment designations of the SJVAB. The identification of this program-level impact does not preclude the finding of less-than-significant impacts for subsequent individual projects that comply with SJVAPCD SPAL screening criteria or meet applicable thresholds of significance. However, due to the programmatic nature of the proposed project, no additional mitigating policies are available, and the impact is considered significant and unavoidable.

AIR-2b: Construction (Short-Term Emissions)

Construction activities associated with potential future development that would be accommodated under the proposed project could generate construction phase (short-term) emissions that would exceed SJVAPCD's regional or localized threshold criteria and cumulatively contribute to the nonattainment designations of the SJVAB.

Construction activities would temporarily increase PM₁₀, PM_{2.5}, VOC, NO_x, SO_x, and CO regional emissions within the SJVAB. The primary source of NO_x, CO, and SO_x emissions is from the use of construction equipment. The primary sources of particulate matter (PM₁₀ and PM_{2.5}) emissions are activities that disturb the soil, such as grading and excavation, road construction, and building demolition and construction. The primary sources of VOC emissions are the application of architectural coating and off-gas emissions

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associated with asphalt paving. A discussion of health effects associated with air pollutant emissions generated by construction activities is included under Section 4.1.1.2, *Air Pollutants of Concern*.

Construction activities associated with proposed project would occur over the buildout horizon of the plan, causing short-term emissions of criteria air pollutants. However, information regarding specific development projects, soil types, and the locations of receptors would be needed in order to quantify the level of impact associated with construction activity from potential future development. Due to the scale of development activity associated with buildout of proposed project, emissions would likely exceed the SJVAPCD regional significance thresholds. In accordance with the SJVAPCD methodology, emissions that exceed the regional significance thresholds would cumulatively contribute to the nonattainment designations of the SJVAB. The SJVAB is designated as nonattainment for O₃, PM₁₀, and PM_{2.5}. Emissions of VOC and NO_x are precursors to the formation of O₃. In addition, NO_x is a precursor to the formation of particulate matter (PM₁₀ and PM_{2.5}). Therefore, the proposed project would cumulatively contribute to the nonattainment designations of the SJVAB for O₃ and particulate matter (PM₁₀ and PM_{2.5}).

Air quality emissions related to construction must be addressed on a project-by-project basis. For the proposed project, which is a broad-based policy plan, it is not possible to determine whether the scale and phasing of individual projects would exceed the localized construction emissions thresholds. In addition to regulatory measures, mitigation imposed at the project level may include extension of construction schedules and/or use of special equipment. While growth within the General Plan Area would cumulatively contribute to construction (short-term) regional criteria air pollutant emissions impacts, the proposed project contains various policies to minimize construction emissions associated with the proposed development projects. Conservation Element Policies C-P69 through C-P71 require maintained construction equipment and fugitive dust control measures to minimize dust and construction air emission impacts.

As part of the development process, individual, site-specific projects accommodated under the proposed project that meet the criteria of SJVAPCD Indirect Source Review Rule 9510 would be required to prepare a detailed AIA. To the extent applicable under Rule 9510 for each such individual development, SJVAPCD would require calculation of the construction emissions from the development. The purpose of the AIA is to confirm a development's construction exhaust emissions, and therefore be able to identify appropriate mitigation, either through implementation of specific mitigation measures (e.g., use of construction equipment with USEPA Tier 4-rated engines) or payment of applicable off-site fees. As stated, under Rule 9510, each project that is subject to this rule would be required to reduce construction exhaust emissions by 20 percent for NO_x or pay offset mitigation fees for emissions that do not achieve the mitigation requirements. In addition to Rule 9510, future individual projects would also be subject to other regulatory measures such as SJVAPCD Rules 9510 and 8021 and CARB's Airborne Toxic Control Measures.

Nevertheless, while adherence to existing and proposed regulations may reduce construction phase (short-term) emissions, the likely scale and extent of construction activities associated with the proposed project would likely continue to exceed the SJVAPCD thresholds for some projects. Compared to the approved project, the proposed project would have similar impacts because the proposed project would result in an increase in land use intensity rather than development of new, previously undeveloped areas of the General Plan Area, which would require substantial landform modification. Therefore, like the approved project, construction activities associated with buildout of the proposed project would generate substantial short-

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term criteria air pollutant emissions that would exceed the SJVAPCD's regional significance thresholds and cumulatively contribute to the nonattainment designations of the SJVAB.

Significance Without Mitigation: Impact AIR-2b would be potentially significant.

Mitigation Measure AIR-2b: Prior to issuance of any construction permits for development projects subject to California Environmental Quality Act (CEQA) review (i.e., non-exempt projects), development project applicants shall prepare and submit to the City of Lodi a technical assessment evaluating potential project construction-related air quality impacts. The evaluation shall be prepared in conformance with San Joaquin Valley Unified Air Pollution Control District (SJVAPCD) methodology in assessing air quality impacts. The prepared evaluation for projects that meet the SJVAPCD Small Projects Analysis Level (SPAL) screening criteria shall at minimum identify the primary sources of construction emissions and include a discussion of the applicable SJVAPCD rules and regulations and SPAL screening criteria to support a less-than-significant conclusion.

For projects that do not meet the SPAL screening criteria, project-related construction emissions shall be quantified. If construction-related criteria air pollutants are determined to have the potential to exceed the SJVAPCD adopted thresholds of significance, as identified in the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI), the City of Lodi shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities to below these thresholds. These identified measures shall be incorporated into appropriate construction documents (e.g., construction management plans) submitted to the City of Lodi. Mitigation measures to reduce construction-related emissions could include, but are not limited to:

- Using construction equipment rated by the United States Environmental Protection Agency as having Tier 4 interim (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower. A list of construction equipment by type and model year shall be maintained by the construction contractor on-site, which shall be available for City review upon request.
- Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards.
- Use of alternative-fueled or catalyst-equipped diesel construction equipment, if available and feasible.
- Clearly posted signs that require operators of trucks and construction equipment to minimize idling time (e.g., five-minute maximum).
- Preparation and implementation of a fugitive dust control plan that may include the following measures:
 - Disturbed areas (including storage piles) that are not being actively utilized for construction purposes shall be effectively stabilized using water, chemical stabilizer/suppressant, or covered with a tarp or other suitable cover (e.g., revegetated).
 - On-site unpaved roads and offsite unpaved access roads shall be effectively stabilized using water or chemical stabilizer/suppressant.

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- Land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled utilizing application of water or by presoaking.
- Material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained when materials are transported offsite.
- Operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.)
- Following the addition of materials to or the removal of materials from the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
- Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.
- Any site with 150 or more vehicle trips per day shall prevent carryout and trackout.
- Limit traffic speeds on unpaved roads to 15 miles per hour.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than 1 percent.
- Install wheel washers for all exiting trucks or wash off all trucks and equipment leaving the project area.
- Adhere to Regulation VIII's 20 percent opacity limitation, as applicable.
- Enter into a Voluntary Emissions Reduction Agreement (VERA) with the SJVAPCD. The VERA shall identify the amount of emissions to be reduced, in addition to the amount of funds to be paid by the project applicant to the SJVAPCD to implement emission reduction projects required for the project.

Mitigation Measure AIR-2c: To reduce temporary increases in criteria air pollutant emissions during the construction phase for discretionary development projects that are subject to CEQA and exceed the SJVAPCD's Small Projects Analysis Level (SPAL) and Ambient Air Quality Analysis (AAQA) screening criteria, the City shall adopt the following General Plan Program to support Policies C-P69, C-P70, C-P71 and C-P78 and to be implemented as part of the project approval process:

- **New Program:** Require projects that exceed the SJVAPCD's screening sizes as described in the District's GAMAQI to evaluate project-specific construction emissions in conformance with the SJVAPCD's GAMAQI methodology and if construction-related criteria air pollutants exceed the SJVAPCD's thresholds of significance, require the project applicant to mitigate the impacts to an acceptable level.

Significance with Mitigation: Significant and unavoidable. Implementation of the proposed project would occur over a period of 20 years or longer. Construction activities associated with development allowed under the proposed project could generate short-term emissions that exceed the SJVAPCD's

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significance thresholds during this time and cumulatively contribute to the nonattainment designations of the SJVAB. Implementation of Mitigation Measures AIR-2b and AIR-2c, in addition to applicable regulatory measures (e.g., SJVAPCD Rules 9510 and Regulation VIII) and proposed project policies listed above would reduce criteria air pollutant emissions from construction-related activities to the extent feasible and may result in reducing construction-related regional air quality impacts of subsequent individual projects to less than significant. However, due to the programmatic nature of the proposed project, construction time frames and equipment for individual site-specific projects are not available and there is a potential for multiple developments to be constructed at any one time, resulting in significant construction-related emissions. Therefore, despite adherence to Mitigation Measure AIR-2b and AIR-2c, this impact would remain significant and unavoidable. The identification of this program-level impact does not preclude the finding of less-than-significant impacts for subsequent individual projects that meet applicable thresholds of significance.

This SEIR quantifies the increase in criteria air pollutants emissions in the General Plan Area. However, at a program-level analysis, it is not feasible to quantify the increase in TACs from stationary sources associated with the proposed project or meaningfully correlate how regional criteria air pollutant emissions above the SJVAPCD's significance thresholds correlate with basin-wide health impacts.

To determine cancer and noncancer health risk, the location, velocity of emissions, meteorology and topography of the area, and locations of receptors are equally important as model parameters as the quantity of TAC emissions. The white paper prepared by the Association of Environmental Professionals' Climate Change Committee, *We Can Model Regional Emissions, But Are the Results Meaningful for CEQA*, describes several of the challenges of quantifying local effects—particularly health risks—for large-scale, regional projects, and these are applicable to both criteria air pollutants and TACs. Similarly, the two amicus briefs filed by the air districts on the Friant Ranch case describe two positions regarding CEQA requirements, modeling feasibility, variables, and reliability of results for determining specific health risks associated with criteria air pollutants. The discussions also include the distinction between criteria air pollutant emissions and TACs with respect to health risks. Additionally, the SJVAPCD's Significance Thresholds and Monitoring demonstrate the infeasibility based on the current guidance/methodologies. The following summarizes major points about the infeasibility of assessing health risks of criteria air pollutant emissions and TACs associated with implementation of a general plan. The white paper and amicus briefs are provide in Appendix B.

To achieve and maintain air quality standards, the SJVAPCD has established numerical emission indicators of significance for regional and localized air quality impacts for both construction and operational phases of a local plan or project. The SJVAPCD has established the thresholds based on "scientific and factual data that is contained in the federal and state Clean Air Acts" and recommends "that these thresholds be used by lead agencies in making a determination of significance." (Los Angeles 2019)The numerical emission indicators are based on the recognition that the SJVAB is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health. The thresholds represent the maximum emissions from a plan or project that are expected not to cause or contribute to an exceedance of the most stringent applicable national or state ambient air quality standard. By analyzing the plan's emissions against the thresholds, an EIR assesses whether these emissions directly contribute to any regional or local exceedances of the applicable ambient air quality standards and exposure levels.

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SJVAPCD currently does not have methodologies that would provide the City with a consistent, reliable, and meaningful analysis to correlate specific health impacts that may result from a proposed project's mass emissions. For criteria air pollutants, exceedance of the regional significance thresholds cannot be used to correlate a project to quantifiable health impacts unless emissions are sufficiently high to use a regional model. SJVAPCD has not provided methodology to assess the specific correlation between mass emissions generated and their effect on health (Appendix B).

Ozone concentrations depend on a variety of complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Secondary formation of particulate matter (PM) and ozone can occur far from sources as a result of regional transport due to wind and topography (e.g., low-level jet stream). Photochemical modeling depends on all emission sources in the entire domain (i.e., modeling grid). Low resolution and spatial averaging produce "noise" and modeling errors that usually exceed individual source contributions. Because of the complexities of predicting ground-level ozone concentrations in relation to the National and California AAQS, it is not possible to link health risks to the magnitude of emissions exceeding the significance thresholds.

Current models used in CEQA air quality analyses are designed to estimate potential project construction and operation emissions for defined projects. The estimated emissions are compared to significance thresholds, which are keyed to reducing emissions to levels that will not interfere with the region's ability to attain the health-based standards. This serves to protect public health in the overall region, but there is currently no CEQA methodology to determine the impact of emissions (e.g., pounds per day) on future concentration levels (e.g., parts per million or micrograms per cubic meter) in specific geographic areas. CEQA thresholds, therefore, are not specifically tied to potential health outcomes in the region.

The SEIR must provide an analysis that is understandable for decision making and public disclosure. Regional-scale modeling may provide a technical method for this type of analysis, but it does not necessarily provide a meaningful way to connect the magnitude of a project's criteria pollutant emissions to health effects without speculation. Additionally, this type of analysis is not feasible at a general plan level because the location of emissions sources and quantity of emissions are not known. For purposes of this analysis, because cumulative development within the General Plan Area would exceed the regional significance thresholds, the proposed project could contribute to an increase in health effects in the SJVAB, and impacts are found to be significant and unavoidable.

AIR-3	The proposed project would expose sensitive receptors to substantial pollutant concentrations.
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The 2009 EIR identified that the development of the approved project could place sensitive land uses near local intersections or roadways associated with air pollutant emissions that exceed State or federal AAQS. In addition to these air pollutant emissions, a variety of TAC emissions could also be released from various construction and operations (i.e., industrial processes, diesel equipment and vehicles) associated with the development allowed under the approved project. Given the uncertainty as to whether future air quality

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impacts associated with the potential exposure of sensitive receptors to substantial pollutant concentrations could be adequately mitigated, impacts were found to be significant and unavoidable.

3a: Operation Health Hazards

Operation of new land uses consistent with the land use plan of the proposed project could generate new sources of criteria air pollutants and TACs in the General Plan Area from area/stationary sources and mobile sources. The following describes potential localized operational air quality impacts from implementation of the proposed project compared to the approved project.

CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the State 1-hour standard of 20 ppm or the 8-hour standard of 9.0 ppm. However, emissions from motor vehicles, the largest source of CO emissions, have been declining since 1985 despite increases in VMT due to the introduction of new automotive emission controls and fleet turnover. Consequently, no CO hotspots have been reported in the SJVAB even at the most congested intersections (SJVAPCD 2015a). Furthermore, under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection to more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2023).

Based on average daily traffic (ADT) estimates provided by Fehr & Peers, Kettleman Lane currently experiences up to 18,301 daily vehicle trips during existing conditions. Utilizing the industry standard practice of dividing average daily vehicle trips by 10 to approximate peak hour trips, Kettleman Lane currently experiences an estimated 1,830 peak hour trips. Combined with trips generated by the proposed project, Kettleman Lane could experience up to 35,227 average daily trips or 3,523 peak hour trips. Therefore, the proposed project would not introduce new vehicle trips which may result in a CO hotspot when combined with existing traffic volumes and in comparison to the approved project. Consequently, the proposed project would not result in new or a substantial increase in magnitude of impacts compared to that of the approved project.

Toxic Air Contaminants

Permitted Stationary Sources

Various industrial and commercial processes (e.g., manufacturing, dry cleaning) would be expected to release TACs. TAC emissions generated by stationary and point sources of emissions within the SJVAB are regulated and controlled by SJVAPCD. However, emissions of TACs from mobile sources when operating at a property (e.g., truck idling) are regulated by statewide rules and regulations, not by SJVAPCD, and have the potential to generate substantial concentrations of air pollutants.

Land uses that would require a permit from SJVAPCD for emissions of TACs include chemical processing facilities, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. Emissions of TACs from stationary sources would be controlled by SJVAPCD through permitting and would be subject to further study and health risk assessment prior to the issuance of any necessary air quality permits under

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Regulation II. According to SJVAPCD's GAMAQI, Regulation II ensures that stationary source emissions (permitted sources) would be reduced or mitigated below SJVAPCD significance thresholds of ten in one million cancer risk and one for acute risk at the maximally exposed individual. Though these sources would incrementally contribute to the proposed project inventory on an individual basis, they would be mitigated to the standards identified above.

Although implementation of the proposed project may result in projects that emit TACs throughout the General Plan Area, the incremental impact of the proposed project is the same as the approved project. As a result, the proposed project would not result in new or a substantial increase in magnitude of impacts compared to the approved project.

Warehouse/Industrial Land Uses

Mobile sources of TACs are not regulated by SJVAPCD. The primary mobile source of TACs within the General Plan Area is truck idling and use of cargo-handling equipment. New warehousing operations could generate substantial DPM emissions from cargo-handling equipment use and truck idling. In addition, some warehousing and industrial facilities may include use of transport refrigeration units (TRUs) for cold storage. New land uses in the General Plan Area that use trucks, including trucks with TRUs, could generate an increase in DPM that would contribute to cancer and noncancer health risk in the SJVAB. Additionally, these types of facilities could also generate particulate matter (PM₁₀ and PM_{2.5}) that may cause an exceedance or contribute to the continuing exceedance of the federal and State AAQS. These new Industrial land uses could be near existing air quality sensitive receptors within and outside the General Plan Area. In addition, trucks would travel on regional transportation routes through the SJVAB, contributing to near-roadway diesel particulate matter concentrations.

The relevant and modified policies from the existing Lodi General Plan that require local planning and development decisions to consider impacts to air quality sensitive receptors include:

- **Policy C-74:** 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.).
- **Policy C-P79:** Require new sensitive uses proposed to be located within 500 feet of high volume traffic routes where daily vehicle counts exceed 100,000, to use an HVAC system with filtration to reduce/mitigate infiltration of vehicle emissions as warranted by exposure analysis.
- **Policy C-P80:** Require industrial development adjacent to residential areas to provide buffers and institute setbacks intended to ensure land use compatibility in regards to potential Toxic Air Contaminant exposure.

Though individual projects would be required to have less than significant impacts, cumulative development in the General Plan Area would result in an increase in DPM concentrations and could increase the environmental burden on sensitive populations, including environmental justice communities, in the SJVAB.

As a long-range planning document, the proposed project lacks sufficient detail on specific development projects that would potentially be developed in the future; therefore, it is not possible to determine what types of TACs would be generated on an individual site. Because the exact nature of the future industrial

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uses is not known, the quantity of TACs generated by the proposed project is also unknown. Furthermore, for warehouse development projects, cancer risk is predominantly associated with diesel-powered cargo-handling equipment rather than on-site truck idling. There is insufficient information available at this level of analysis to conduct a reasonable or scientifically valid analysis of DPM associated with on-site diesel-powered cargo-handling equipment and trucks or other sources of TACs. Thus, for programmatic, general-plan-level assessments, it is not feasible to conduct regional dispersion modeling to determine the incremental contribution of risks associated with land use changes.

However, there would be a decrease in industrial and commercial land uses under the proposed project in comparison to the approved project. Furthermore, the proposed project would not result in placing land uses designated as industrial closer to sensitive land use compared to the approved project. Therefore, the proposed project would not result in a substantial increase in magnitude of health risk impacts from non-permitted sources compared to that of the approved project (see Table 3-1, *Existing General Plan and Proposed Land Use Designation Acres*).

Overall, because there are no specific development projects identified or approved under the proposed project and the location and exact nature of future development projects are unknown, determining health risk at this time is considered speculative pursuant to Section 15145 of the CEQA Guidelines. Health risk impacts from development of industrial and commercial land uses allowed under the proposed project are considered a potentially significant impact.

Level of Significance Without Mitigation: Impact AIR-3a would be potentially significant.

Mitigation Measure AIR-3a: To ensure sensitive receptors are not exposed to toxic air contaminant emissions during the operation phase for discretionary development projects that are subject to CEQA which exceed the screening sizes in the SJVAPCD GAMAQI, the City shall adopt the following General Plan Program to support Policy C-P59 be implemented as part of the project approval process:

- **New Program:** Require applicants for industrial or warehousing land uses or commercial land uses that would generate substantial diesel truck travel (i.e., 100 diesel trucks per day or 40 or more trucks with diesel-powered transport refrigeration units per day) to contact SJVAPCD to determine the appropriate level of operational health risk assessment (HRA) required. If required, the operational HRA shall be prepared in accordance with the Office of Environmental Health Hazard Assessment (OEHHA) and SJVAPCD requirements and mitigated to an acceptable level.

Significance with Mitigation: Significant and unavoidable. Development allowed under the proposed project could result in new sources of criteria air pollutant emissions and/or TACs near existing or planned sensitive receptors. Review of development projects in accordance with SJVAPCD's Regulation II, Permits, for permitted sources of air toxics (e.g., industrial facilities, dry cleaners, and gasoline dispensing facilities) and in accordance with the relevant goals and policies would ensure that health risks are minimized. Individual development projects would be required to achieve the incremental risk thresholds established by SJVAPCD for project-level impacts to be less than significant. However, these projects could contribute to significant cumulative risk in the SJVAB that could affect sensitive populations and disadvantaged communities. As a result, the proposed project's contribution to cumulative health risk is considered significant and unavoidable.

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3b: Construction Health Hazards

Future construction under the proposed project would temporarily elevate concentrations of TACs and diesel-PM_{2.5} in the vicinity of sensitive land uses during construction activities. Because the details regarding future construction activities are not known at this time—including phasing of future individual projects, construction duration and phasing, and preliminary construction equipment—construction emissions are evaluated qualitatively. Subsequent project-specific evaluation of qualifying future development projects would be required to assess potential impacts and mitigate those impacts to acceptable levels. Mitigation Measures to reduce risk may include the use of construction equipment with USEPA Tier 4 rated engines. However, construction emissions associated with the proposed project could exceed the SJVAPCD health risk thresholds for some projects. Therefore, similar to the approved project, construction-related health risk impacts associated with potential future development under the proposed project could expose nearby sensitive receptors to substantial TACs during construction, and impacts are considered potentially significant.

Level of Significance Without Mitigation: Impact AIR-3b would be potentially significant.

Mitigation Measure AIR-3b: Implement Mitigation Measures AIR-2b and AIR-2c.

Significance with Mitigation: Significant and unavoidable. Similar to the approved project, implementation of the proposed project would occur over a period of 20 years or longer. Construction activities associated with development allowed under the proposed project could generate short-term emissions that could expose air quality sensitive receptors to construction emissions. Implementation of Mitigation Measures AIR-2b and AIR-2c and applicable regulatory measures would reduce criteria air pollutant emissions from construction-related activities to the extent feasible and may result in reducing construction-related regional air quality impacts of subsequent individual projects to less than significant. However, due to the programmatic nature of the proposed project, construction time frames and equipment for individual site-specific projects are not available, and there is a potential for multiple developments to be constructed at any one time, resulting in significant construction-related emissions. Therefore, despite adherence to Mitigation Measure AIR-2c this impact would remain significant and unavoidable. The identification of this program-level impact does not preclude the finding of less-than-significant impacts for subsequent individual projects that meet applicable thresholds of significance.

AIR-4	The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.
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The 2009 EIR did not evaluate odor impacts associated with the approved project. The following discusses potential operation- and construction-related odor impacts associated with implementation of the proposed project compared to the approved project.

Operational-Related Odors

4a: Industrial Land Uses

Development allowed under the proposed project could generate new sources of odors. Odors from the types of land uses that could generate objectionable odors (see Table 4.1-8, *SJVAPCD Screening Levels for Potential Odor Sources*) are regulated under Regulation IV, Prohibitions, Rule 4102, *Nuisance*, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such person or the public or which cause or have a natural tendency to cause injury or damage to business or property.

Industrial land uses are the primary types of land uses that have the potential to generate objectionable odors and the proposed project has a reduction in industrial land usage in comparison to the approved project land use designations (see Table 3-1, *Existing General Plan and Proposed Land Use Designation Acres*).

Additionally, future environmental review could be required for industrial projects listed in Table 4.1-8 to ensure that sensitive land uses are not exposed to nuisance odors. SJVAPCD Rule 4102 requires abatement of any nuisance generating an odor complaint. Typical abatement includes passing air through a drying agent followed by two successive beds of activated carbon to generate odor-free air. Facilities listed in Table 4.1-8 would need to consider measures to reduce odors as part of their CEQA review. Consequently, review of projects using SJVAPCD's odor screening distances is necessary to ensure that odor impacts are minimized. Therefore, impacts from potential odors generated from industrial land uses associated with proposed project compared to the approved project are considered less than significant. The proposed project would not result in new or a substantial increase in magnitude of impacts compared to the approved project.

Level of Significance Without Mitigation: Impact AIR-4a would be less than significant.

4b: Residential and Other Land Uses

Like the approved project, residential and other nonresidential, nonindustrial land uses that would be accommodated by the proposed project could result in the generation of odors such as exhaust from landscaping equipment and from cooking. Unlike industrial land uses, these are not considered potential generators of odor that could affect a substantial number of people. Nuisance odors are regulated under SJVAPCD Rule 4102, which requires abatement of any nuisance generating a verified odor complaint. Therefore, impacts from potential odors generated from residential and other nonresidential land uses associated with the proposed project would be considered less than significant. The proposed project would not result in new or a substantial increase in magnitude of impacts compared to the approved project.

Level of Significance Without Mitigation: Impact AIR-4b would be less than significant.

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4c: Construction-Related Odors

Like the approved project, during construction activities, construction equipment exhaust and application of asphalt and architectural coatings would temporarily generate odors. Any construction-related odor emissions would be temporary and intermittent in nature. Additionally, noxious odors would be confined to the immediate vicinity of the construction equipment. By the time such emissions reach any sensitive receptor sites, they would be diluted to well below any level of air quality concern. Therefore, impacts associated with construction-generated odors are considered less than significant. The proposed project would not result in new or a substantial increase in magnitude of impacts compared to the approved project.

Level of Significance Without Mitigation: Impact AIR-4c would be less than significant.

4.1.6 CUMULATIVE IMPACTS

AIR-5	Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in a cumulative impact with respect to air quality (criteria air pollutants and toxic air contaminants).
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The cumulative setting for air quality is the SJVAPCD. In accordance with the SJVAPCD methodology, any project that produces a significant project-level regional air quality impact in an area that is in nonattainment contributes to the cumulative impact. Cumulative projects include new development and general growth within the SJVAB. As identified in AIR-2, implementation of the proposed project would cumulatively contribute to the nonattainment designations of the SJVAB and cumulative impacts are significant.

Criteria Air Pollutants

As identified in Section 4.1.1, *Environmental Setting*, California is divided into air basins for the purpose of managing the air resources of the state on a regional basis based on meteorological and geographic conditions. Similar to GHG emissions impacts, air quality impacts are regional in nature as no single project generates enough emissions that would cause an air basin to be designated as a nonattainment area. Criteria air pollutant emissions generated by cumulative development associated with buildout of the proposed project would likely exceed SJVAPCD's project-level significance thresholds during construction and operation, and thus would contribute to the nonattainment designations of the SJVAB.

The SJVAB is currently designated as nonattainment area for O₃ and particulate matter (PM₁₀ and PM_{2.5}). Implementation of Mitigation Measures AIR-2a, AIR-2b, and AIR-2c would reduce project-level impacts on an individual basis. However, in combination with past, present, and reasonably foreseeable projects elsewhere in the SJVAPCD, the proposed project would result in a significant cumulative impact with respect to regional construction and operational impacts.

Toxic Air Contaminants

Buildout of the proposed project would generate new sources of TACs near existing or planned sensitive receptors. Mitigation Measure AIR-3a and review of development projects by the SJVAPCD for permitted sources of air toxics (e.g., industrial facilities, dry cleaners, and gasoline dispensing facilities) would ensure that health risks are minimized. Individual development projects would be required to achieve the incremental risk thresholds established by the SJVAPCD, and TACs would be less than significant.

However, implementation of the proposed project would generate TACs that could contribute to elevated levels in the SJVAB. While individual projects would achieve the project-level risk threshold of 20 per million, they would nonetheless contribute to the higher levels of cancer risk in the SJVAB, and therefore result in a cumulatively considerable impact. Therefore, the cumulative contribution to health risk resulting from implementation of the proposed project would be potentially significant.

Level of Significance Without Mitigation: Impact AIR-5 would be potentially significant.

Mitigation Measure AIR-5: Implement Mitigation Measures AIR-2a, AIR-2b, AIR-2c, and AIR-3a.

Significance with Mitigation: Significant and unavoidable. Criteria air pollutant emissions generated by land uses within the proposed project could exceed the SJVAPCD regional thresholds (see impact discussions AIR-2). Air quality impacts identified in the discussion under Impact AIR-2a, AIR-2b, AIR-3a, and AIR-3b constitute the proposed project's contribution to cumulative air quality impacts in the SJVAB. Mitigation measures AIR-2A, AIR-2b, AIR-2c, and AIR-3a would reduce project-related emissions to the extent feasible. However, due to the programmatic nature of the proposed project and no additional mitigation measures being available, the air pollutant emissions associated with the proposed project would result in a cumulatively considerable contribution to air quality impacts and remain significant and unavoidable at the program level.

4.1.7 MITIGATION MEASURES

Mitigation Measures from the 2009 EIR

The 2009 EIR identified a wide range of policies designated to address air quality issues, including compliance with SJVAPCD permitting and discouragement of industrial uses near sensitive land uses. However, there were no other feasible mitigation measures available at the time to reduce air quality impacts.

New Mitigation Measures

Mitigation Measure AIR-2a: To reduce long-term increases in air pollutants during the operation phase for discretionary development projects that are subject to CEQA, which exceed the SJVAPCD's Small Projects Analysis Level (SPAL) and Ambient Air Quality Analysis (AAQA) screening criteria, the City shall adopt the following General Plan Program to support Policy C-P73 and C-P78 be implemented as part of the project approval process:

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- **New Program:** Require projects that exceed the SJVAPCD's SPAL and AAQA screening criteria to evaluate project-specific operation emissions in conformance with SJVAPCD's GAMAQI, and if operation-related air pollutants exceed the SJVAPCD-adopted thresholds of significance, require the project applicants to mitigate the impact to an acceptable level.

Mitigation Measure AIR-2b: Prior to issuance of any construction permits for development projects subject to California Environmental Quality Act (CEQA) review (i.e., non-exempt projects), development project applicants shall prepare and submit to the City of Lodi a technical assessment evaluating potential project construction-related air quality impacts. The evaluation shall be prepared in conformance with San Joaquin Valley Unified Air Pollution Control District (SJVAPCD) methodology in assessing air quality impacts. The prepared evaluation for projects that meet the SJVAPCD Small Projects Analysis Level (SPAL) screening criteria shall at minimum identify the primary sources of construction emissions and include a discussion of the applicable SJVAPCD rules and regulations and SPAL screening criteria to support a less-than-significant conclusion.

For projects that do not meet the SPAL screening criteria, project-related construction emissions shall be quantified. If construction-related criteria air pollutants are determined to have the potential to exceed the SJVAPCD adopted thresholds of significance, as identified in the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI), the City of Lodi shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities to below these thresholds. These identified measures shall be incorporated into appropriate construction documents (e.g., construction management plans) submitted to the City of Lodi. Mitigation measures to reduce construction-related emissions could include, but are not limited to:

- Using construction equipment rated by the United States Environmental Protection Agency as having Tier 4 interim (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower. A list of construction equipment by type and model year shall be maintained by the construction contractor on-site, which shall be available for City review upon request.
- Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards.
- Use of alternative-fueled or catalyst-equipped diesel construction equipment, if available and feasible.
- Clearly posted signs that require operators of trucks and construction equipment to minimize idling time (e.g., five-minute maximum).
- Preparation and implementation of a fugitive dust control plan that may include the following measures:
 - Disturbed areas (including storage piles) that are not being actively utilized for construction purposes shall be effectively stabilized using water, chemical stabilizer/suppressant, or covered with a tarp or other suitable cover (e.g., revegetated).

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- On-site unpaved roads and offsite unpaved access roads shall be effectively stabilized using water or chemical stabilizer/suppressant.
- Land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled utilizing application of water or by presoaking.
- Material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained when materials are transported offsite.
- Operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.)
- Following the addition of materials to or the removal of materials from the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
- Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.
- Any site with 150 or more vehicle trips per day shall prevent carryout and trackout.
- Limit traffic speeds on unpaved roads to 15 miles per hour.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than 1 percent.
- Install wheel washers for all exiting trucks or wash off all trucks and equipment leaving the project area.
- Adhere to Regulation VIII's 20 percent opacity limitation, as applicable.
- Enter into a Voluntary Emissions Reduction Agreement (VERA) with the SJVAPCD. The VERA shall identify the amount of emissions to be reduced, in addition to the amount of funds to be paid by the project applicant to the SJVAPCD to implement emission reduction projects required for the project.

Mitigation Measure AIR-2c: To reduce temporary increases in criteria air pollutant emissions during the construction phase for discretionary development projects that are subject to CEQA, which exceed the SJVAPCD's Small Projects Analysis Level (SPAL) and Ambient Air Quality Analysis (AAQA) screening criteria, the City shall adopt the following General Plan Program to support Policy C-P69, C-P70, C-P71 and C-P78 to be implemented as part of the project approval process:

- **New Program:** Require projects that exceed the SJVAPCD's screening sizes as described in the District's GAMAQI to evaluate project-specific construction emissions in conformance with the SJVAPCD's GAMAQI methodology and if construction-related criteria air pollutants exceed the SJVAPCD's thresholds of significance, require the project applicant to mitigate the impacts to an acceptable level.

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Mitigation Measure AIR-3a: To ensure sensitive receptors are not exposed to toxic air contaminant emissions during the operation phase for discretionary development projects that are subject to CEQA which exceed the screening sizes in the SJVAPCD GAMAQI, the City shall adopt the following General Plan Program to support Policy C-P59 be implemented as part of the project approval process:

- **New Program:** Require applicants for industrial or warehousing land uses or commercial land uses that would generate substantial diesel truck travel (i.e., 100 diesel trucks per day or 40 or more trucks with diesel-powered transport refrigeration units per day) to contact SJVAPCD to determine the appropriate level of operational health risk assessment (HRA) required. If required, the operational HRA shall be prepared in accordance with the Office of Environmental Health Hazard Assessment (OEHHA) and SJVAPCD requirements and mitigated to an acceptable level.

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4.2 ENERGY

This section describes the potential energy impacts associated with the adoption and implementation of the City of Lodi General Plan Update (proposed project) in comparison to the existing General Plan (approved project) and impacts evaluated in the 2009 Environmental Impact Report (EIR). This section describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential energy impacts, and identifies General Plan policies and feasible mitigation measures that could mitigate any potentially significant impacts.

4.2.1 ENVIRONMENTAL SETTING

4.2.1.1 REGULATORY FRAMEWORK

Federal Regulations

Federal Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 was established in response to the 1973 oil crisis. The act created the Strategic Petroleum Reserve, established vehicle fuel economy standards, and prohibited the export of U.S. crude oil (with a few limited exceptions). It also created Corporate Average Fuel Economy (CAFE) standards for passenger cars starting in model year 1978. The CAFE Standards are updated periodically to account for changes in vehicle technologies, driver behavior, and/or driving conditions.

The federal government issued new CAFE standards in 2012 for model years 2017 to 2025 that required a fleet average of 54.5 miles per gallon (MPG) for model year 2025. However, on March 30, 2020, the United States Environmental Protection Agency (USEPA) finalized an updated CAFE and greenhouse gas (GHG) emissions standards for passenger cars and light trucks and established new standards, covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021–2026. Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 MPG for model year 2026 vehicles (Federal Register 2020).

On December 21, 2021, under direction of Executive Order (EO) 13990 issued by President Biden, the National Highway Traffic Safety Administration repealed SAFE Vehicles Rule Part One, which had preempted state and local laws related to fuel economy standards. In addition, the National Highway Traffic Safety Administration finalized new fuel standards in response to EO 13990. Fuel efficiency under the standards will increase 8 percent annually for model years 2024 to 2025 and 10 percent annually for model year 2026. Overall, the new CAFE standards require a fleet average of 49 mpg for passenger vehicles and light trucks for model year 2026, which would be a 10 mpg increase relative to model year 2021 (NHTSA 2022).

- On June 7, 2024, NHTSA announced final CAFE standards for passenger cars and light trucks built in model years 2027-2031 and final fuel efficiency standards for heavy-duty pickup trucks and vans built in model years 2030-2035. The final rules establish standards that would require an industry fleet-wide average of approximately 50.4 mpg for passenger cars and light trucks in model year 2031, by increasing fuel economy by 2 percent year over year for passenger cars (model years 2027-2031) and for light

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trucks (model years 2029-2031). For heavy-duty pickup trucks and vans, the final rule would increase fuel efficiency at a rate of 10 percent per year (model years 2030-2032) and 8 percent per year (model years 2033-2035) (NHTSA 2024).

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (Public Law 110-140) seeks to provide the nation with greater energy independence and security by increasing the production of clean renewable fuels; improving vehicle fuel economy; and increasing the efficiency of products, buildings, and vehicles. It also seeks to improve the energy performance of the federal government. The act sets increased CAFE Standards; the Renewable Fuel Standard; appliance energy efficiency standards; building energy efficiency standards; and accelerated research and development tasks on renewable energy sources (e.g., solar energy, geothermal energy, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration (USEPA 2024).

Energy Policy Act of 2005

Passed by Congress in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. This Act includes tax incentives for energy conservation improvements in commercial and residential buildings, fossil fuel production and clean coal facilities, and construction and operation of nuclear power plants, among other things. Subsidies are also included for geothermal, wind energy, and other alternative energy producers.

National Energy Policy

Established in 2001 by the National Energy Policy Development Group, the National Energy Policy is designed to help the private sector and state and local governments promote dependable, affordable, and environmentally sound production and distribution of energy for the future. Key issues addressed by the energy policy are energy conservation, repair and expansion of energy infrastructure, and ways of increasing energy supplies while protecting the environment.

Natural Gas Pipeline Safety Act of 1968

The Natural Gas Pipeline Safety Act of 1968 authorizes the United States Department of Transportation to regulate pipeline transportation of flammable, toxic, or corrosive natural gas and other gases as well as the transportation and storage of liquefied natural gas. The Pipeline and Hazardous Materials Safety Administration within the Department of Transportation develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6-million-mile pipeline transportation system.

State Regulations

California Energy Commission

The California Energy Commission (CEC) was created in 1974 under the Warren-Alquist Act as the State's principal energy planning organization to meet the energy challenges facing the state in response to the 1973 oil embargo. The CEC is charged with six basic responsibilities when designing state energy policy:

- Forecast statewide electricity needs.
- License power plants to meet those needs.
- Promote energy conservation and efficiency measures.
- Develop renewable energy resources and alternative energy technologies.
- Promote research, development and demonstration.
- Plan for and direct the state's response to energy emergencies.

California Public Utilities Commission

In September 2008, the California Public Utilities Commission (CPUC) adopted the Long-Term Energy Efficiency Strategic Plan, which provides a framework for energy efficiency in California through the year 2020 and beyond. It articulates a long-term vision, as well as goals for each economic sector, identifying specific near-term, mid-term, and long-term strategies to assist in achieving these goals. This Plan sets forth the following four goals, known as Big Bold Energy Efficiency Strategies, to achieve significant reductions in energy demand:

- All new residential construction in California will be zero net energy (ZNE) by 2020;¹
- All new commercial construction in California will be ZNE by 2030;
- Heating, ventilation and air conditioning commonly referred to as "HVAC" will be transformed to ensure that its energy performance is optimal for California's climate; and
- All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

With respect to the commercial sector, the Long-Term Energy Efficiency Strategic Plan notes that commercial buildings, which include schools, hospitals, and public buildings, consume more electricity than any other end-use sector in California. The commercial sector's five billion-plus square feet of space accounts for 38 percent of the State's power use and over 25 percent of natural gas consumption. Lighting, cooling, refrigeration, and ventilation account for 75 percent of all commercial electric use, while space heating, water heating, and cooking account for over 90 percent of gas use. In 2006, schools and colleges were in the top five facility types for electricity and gas consumption, accounting for approximately 10 percent of State's electricity and gas use (CPUC 2011).

¹ Zero net energy buildings are buildings that the total amount of energy used by the building on an annual basis is equal to or less than the amount of renewable energy created on the site.

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The CPUC and CEC have adopted the following goals to achieve zero net energy (ZNE) levels by 2030 in the commercial sector:

- **Goal 1.** New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030.
- **Goal 2.** 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation.
- **Goal 3.** Transform the commercial lighting market through technological advancement and innovative utility initiatives.

Renewable Portfolio Standard

Senate Bills 1078, 107, X1-2, and Executive Order S-14-08

The California Renewables Portfolio Standard (RPS) Program was established in 2002 under Senate Bill (SB) 1078 (Sher) and 107 (Simitian). The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase the use of eligible renewable energy resources to 33 percent of total procurement by 2020. Initially under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08 was signed in November 2008, which expanded the State's Renewable Energy Standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). The CPUC is required to provide quarterly progress reports on progress toward RPS goals. This has accelerated the development of renewable energy projects throughout the State. For year 2023, the three largest retail energy utilities provided an average of 60 percent of its supplies from renewable energy sources and community choice aggregators provided an average of 59 percent of its supplies from renewable sources (CPUC 2024).

Senate Bill 350

Governor Jerry Brown signed SB 350 on October 7, 2015, which expands the RPS by establishing a goal of 50 percent of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses upon which an energy efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal. SB 350 also provides for the transformation of the California Independent System Operator into a regional organization to promote the development of regional electricity transmission markets in the western states and to improve the access of consumers served by the California Independent System Operator to those markets, pursuant to a specified process.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, which replaces the SB 350 requirements. Under SB 100, the RPS for public owned facilities and retail sellers consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. Additionally, SB 100 also established a new RPS requirement

of 50 percent by 2026. Furthermore, the bill also establishes an overall State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 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.

Senate Bill 1020

SB 1020 was signed into law on September 16, 2022. SB 1020 provides interim RPS targets (90 percent renewable energy by 2035 and 95 percent renewable energy by 2040) and requires renewable energy and zero-carbon resources to reach 100 percent clean electricity by 2045.

Assembly Bill 117 and Senate Bill 790

Community Choice Aggregation is a program that allows cities, counties, and other qualifying governmental entities within the service areas of investor-owned utilities to purchase and/or generate electricity for their residents and businesses. This program was made possible in California by passage of Assembly Bill (AB) 117 (Migden, 2002) and SB 790 (Leno, 2011). AB 117 established Community Choice, and SB 790 strengthened it by creating a “code of conduct” that the incumbent utilities must adhere to in their activities relative to Community Choice.

Energy-Efficiency Regulations

Appliance Efficiency Regulations

California’s Appliance Efficiency Regulations contain energy performance, energy design, water performance, and water design standards for appliances (including refrigerators, ice makers, vending machines, freezers, water heaters, fans, boilers, washing machines, dryers, air conditioners, pool equipment, and plumbing fittings) that are sold or offered for sale in California (California Code of Regulations Title 20, Parts 1600–1608). These standards are updated regularly to allow consideration of new energy efficiency technologies and methods (CEC 2017).

Title 24, Part 6, Energy-Efficiency Standards

Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2019 (California Code of Regulations Title 24, Part 6). 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.

Furthermore, on August 11, 2021, the CEC adopted the 2022 Building Energy Efficiency Standards, which were subsequently approved by the California Building Standards Commission in December 2021. The 2022 standards become effective and replace the existing 2019 standards on January 1, 2023. The 2022 standards would require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances. In addition, the new standards also include prescriptive photovoltaic system and battery requirements for high-rise, multifamily buildings (i.e., more than three stories) and

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noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers (CEC 2021).

Title 24, Part 11, Green Building Standards

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. It includes mandatory requirements for new residential and nonresidential buildings throughout California. CALGreen is intended to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. The mandatory provisions of CALGreen became effective January 1, 2011. The 2022 CALGreen update, which was approved as part of 2022 Energy Code and became effective on January 1, 2023, provides updates to the residential and nonresidential voluntary measures.

Overall, CALGreen reduces construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction. CALGreen contains requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. It provides design options allowing the designer to determine how best to achieve compliance for a given site or building condition. CALGreen Section 5.410.2, *Commissioning*, also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.

Transportation-Sector Specific Regulations

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles.

In January 2012, the California Air Resources Board approved the Pavley Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions (CARB 2017).

Title 13, Chapter 9, Article 4.8, Section 2449

Section 2449 of the California Code of Regulations, Title 13, Chapter 9, Article 4.8 was adopted on May 2, 2008 that limits non-essential idling of fleets to no more than five consecutive minutes at any location. This idling restriction applies to all vehicles in California with a diesel-fueled or alternative diesel-fueled off-road engine, unless a waiver provides sufficient justification that such idling is necessary.

Senate Bill 375

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled (VMT) and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Association of Bay Area Governments (ABAG) is the MPO for the Bay Area region, which includes the city of San Carlos. Pursuant to the recommendations of the Regional Transportation Advisory Committee (RTAC), CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target.

Executive Order N-79-20

On September 23, 2020, Executive Order N-79-20 was issued, which sets a time frame for the transition to zero-emissions (ZE) passenger vehicles and trucks in addition to off-road equipment. It directs CARB to develop and propose the following:

- Passenger vehicle and truck regulations requiring increasing volumes of new ZEVs (zero-emission vehicles) sold in the California toward the target of 100 percent of in-state sales by 2035.
- Medium- and heavy-duty vehicle regulations requiring increasing volumes of new ZE trucks and buses sold and operated in California toward the target of 100 percent of the fleet transitioning to ZEVs by 2045 everywhere feasible, and for all drayage trucks to be ZE by 2035.
- Strategies to achieve 100 percent zero emissions from all off-road vehicles and equipment operations in California by 2035, in cooperation with other State agencies, the EPA, and local air districts.
- On August 25, 2022, CARB adopted the Advanced Clean Cars II regulations that codify the EO goal of 100 percent of in-state sales of new passenger vehicles and trucks be ZE by 2035. Starting in year 2026, Advanced Clean Cars II requires that 35 percent of new vehicles sold be ZE or plug-in hybrids.

Advanced Clean Fleets Regulation

- CARB released the Advanced Clean Fleets (ACF) regulation to accelerate the transition to zero-emission medium- and heavy-duty vehicles (CARB 2023). In conjunction with the Advanced Clean Trucks regulation, the ACF regulations helps to ensure that medium- and heavy-duty ZEVs are brought to the market by requiring certain fleets to purchase them. The ACF ZEV phase-in approach sets clear targets for regulated fleets to make a full conversion to ZEVs.

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- The ACF regulations cover four main elements:
 - **Manufacturer sales mandate.** Manufacturers may sell only zero-emission medium- and heavy-duty vehicles starting in 2036.
 - **Drayage fleets.** Beginning January 1, 2024, trucks must be registered in the CARB Online System to conduct drayage activities in California. Non-zero-emission “legacy” drayage trucks could register in the CARB Online System through December 31, 2023. Legacy drayage trucks can continue to operate through their minimum useful life. Beginning January 1, 2024, only zero-emission drayage trucks may register in the CARB Online System. All drayage trucks entering seaports and intermodal railyards would be required to be zero-emission by 2035.
 - **High priority and federal fleets.** High priority and federal fleets must comply with the Model Year Schedule or may elect to use the optional ZEV Milestones Option to phase-in ZEVs into their fleets:
 - *Model Year Schedule:* Fleets must purchase only ZEVs beginning 2024 and, starting January 1, 2025, must remove internal combustion engine vehicles at the end of their useful life as specified in the regulation.
 - **High priority and federal fleets.** High priority and federal fleets must comply with the Model Year Schedule
 - *Model Year Schedule:* Fleets must purchase only ZEVs beginning 2024 and, starting January 1, 2025, must remove internal combustion engine vehicles at the end of their useful life as specified in the regulation.
 - *ZEV Milestones Option (Optional):* Instead of the Model Year Schedule, fleets may elect to meet ZEV targets as a percentage of the total fleet starting with vehicle types that are most suitable for electrification.
- **State and local agencies.** State and local government fleets, including city, county, special district, and State agency fleets, would be required to ensure 50 percent of vehicle purchases are zero-emission beginning in 2024 and 100 percent of vehicle purchases are zero-emission by 2027. Small government fleets (those with 10 or fewer vehicles) and those in designated counties would start their ZEV purchases beginning in 2027. Alternately, State and local government fleet owners may elect to meet ZEV targets using the ZEV Milestones Option. State and local government fleets may purchase either ZEVs or near-ZEVs or a combination of ZEVs and near-ZEVs until 2035. Starting in 2035, only ZEVs will meet the requirements.
- The ACF regulations also establish requirements that transform the medium- and heavy-duty vehicle sector and demonstrate independent utility through achievement of the following objectives:
 - Achieve criteria and GHG emissions reductions consistent with the goals identified in the State Implementation Plan (SIP) Strategy and Scoping Plan.
 - Provide emissions reductions in disadvantaged communities (DAC), thereby supporting the implementation of Assembly Bill (AB) 617 (Garcia, C., Chapter 136, Statutes of 2017).
 - Support the goals of Executive Order N-79-20, which calls for accelerated ZEV deployment with these targets:

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- 100 percent ZE drayage by 2035.
- 100 percent ZE trucks and buses where feasible by 2045.
- Ensure requirements, such as ZEV deployment schedules and related infrastructure buildout, are technologically feasible, cost-effective, and support market conditions.
- Lead the transition away from petroleum fuels and toward electric drivetrains.
- Contribute towards achieving carbon neutrality in California pursuant to SB 100 and in accordance with EO B-55-18.
- Mindfully set requirements to allow time for public ZE infrastructure buildout for smaller fleets or for regional haul applications who would be reliant on a regional network of public chargers.
- Ensure manufacturers and fleets work together to place ZEVs in service suitably and successfully as market expands.
- Establish a fair and level playing field among fleet owners.
- Craft the proposed project in a way that ensures institutional capacity for CARB to manage, implement, and enforce requirements.

Energy Storage

- California has set ambitious long-term goals for energy storage beyond 2026 to support its clean energy and climate goals. The state aims to reach 100 percent carbon-free electricity by 2045, which will require significant investment in renewable energy sources like wind and solar, as well as energy storage technologies to balance the variability of these sources.
- The California Independent System Operator (CAISO) has a total energy storage capacity of more than 3,160 megawatts (MW) as of June 2022 (CAISO 2022). This includes both large-scale and distributed energy storage systems, such as batteries, pumped hydroelectric storage, and thermal storage. CAISO is responsible for managing the electricity grid for much of California, and it has set a target of adding 3,300 MW of additional energy storage capacity by 2024 to support the integration of more renewable energy sources like wind and solar. As part of SB 100, load serving entities (LSE) were required to procure no less than 1.3 gigawatts (GW) of energy storage capacity by 2020, and 3 GW by 2030 (CPUC 2022).

The Integrated Resource Plan

- CAISO develops a coordinated grid management plan to integrate the generation and storage capacities of LSEs, called the Integrated Resource Plan (IRP). The IRP is a comprehensive planning document that outlines CAISO's forecasts for electricity demand, supply, and transmission needs over a 20-year planning horizon, as well as its strategies for integrating renewable energy resources and other grid services to meet those needs. The plan is developed in collaboration with LSEs, regulators, and other stakeholders, and is updated periodically to reflect changes in the energy landscape and evolving policy goals. Overall, the IRP plays a critical role in ensuring the reliability and resilience of California's electricity grid as the state continues to transition to a cleaner and more sustainable energy system.

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- When an individual Battery Energy Storage (BES) facility or generation infrastructure (i.e., solar panels) comes online in California, it is typically included in the IRP through a process known as the Interconnection Queue. The Interconnection Queue is managed by the CAISO, which oversees the operation of the State's electricity grid.

The Interconnection Queue

- California The Interconnection Queue is an application process that functions as a waiting list of proposed electricity generation and storage projects that are seeking to connect to the grid. When a new BES facility or generation infrastructure is proposed, the developer submits an application to CAISO to request an interconnection to the grid. CAISO evaluates the application to ensure that the facility meets technical and operational requirements, such as voltage regulation and frequency response, and that it can be integrated effectively into the grid.
- Once the BES facility or generation infrastructure is approved by CAISO, it is assigned a point of interconnection on the grid, and its output is added to the IRP as a resource that can provide electricity and other grid services, such as frequency regulation or ramping support. The facility is then dispatched by CAISO based on its bids into the day-ahead and real-time electricity markets, and its output is used to help balance supply and demand on the grid in real-time.
- Overall, the Interconnection Queue is an important mechanism for integrating new BES facilities and other electricity resources into the California grid, and for ensuring that the grid remains reliable and resilient as the state continues to transition to a cleaner and more sustainable energy system.

Regional Regulations

SJCOG's 2022 Regional Transportation Plan and Sustainable Communities Strategy

SB 375 requires each MPO to prepare a sustainable communities strategy in its regional transportation plan. San Joaquin Council of Governments (SJCOG) updated and adopted a sustainable communities strategy in its regional transportation plan on August 25, 2022, called 2022 Regional Transportation Plan and Sustainable Communities Strategy (2022 RTP/SCS) (SCOG 2022). The 2014 and 2018 plans met the previous targets per-capita GHG emissions reductions from 2005 of 5 percent in 2020 and 10 percent in 2035. The 2022 RTP/SCS continues to meet the increased reduction targets set by CARB and imposed under SB 375. This plan will guide the San Joaquin region toward a more sustainable future by integrating land use, housing, and transportation planning to build more sustainable communities. Some characteristics of these communities include compact development with a focus on infill development and access to travel options including transit and bike/pedestrian facilities.

Local Regulations

Lodi Municipal Code

Chapter 15.04 – Building Code

The City adopted the 2022 California Building Code. The Building Code of the City of Lodi shall apply to all matters pertaining to the erection, construction, enlargement, alteration, repair, moving, removal, conversion, demolition, occupancy, equipment, use, height, area, and maintenance of buildings or structures in the City; the issuance of building permits and the collection fees.

Chapter 15.18 – Green Building Code

The City adopted the 2022 California Green Building Standard Code (Green Building Code) and a copy of the Green Building Code is maintained by the city building official. 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.

Chapter 15.19 – Expedited Permit Process for Small Residential Rooftop Solar Systems

This chapter describes the adopted, streamlined solar permitting process that complies with the Solar Rights Act and AB 2188 (Chapter 521, Statutes 2014) to achieve timely and cost-effective installations of small residential rooftop solar energy systems. This chapter encourages the use of solar systems by removing unreasonable barriers, minimizing costs to property owners and the City of Lodi, and expanding the ability of property owners to install solar energy systems.

City of Lodi Climate Action Plan

The City's Climate Action Plan (CAP) was adopted in November 20, 2014, as part of the General Plan process to serve as a guide for a communitywide effort to increase energy and resource efficiency, while following the State of California's guidance regarding the reduction of GHG emissions. This CAP provides a strategic framework for the development of measures, policies and programs across all sectors that aim to reduce GHG emissions resulting from communitywide and municipal government operations within city limits. The five main reduction strategies are building energy efficiency, transportation, water and wastewater, solid waste, and green infrastructure.

The majority of reductions come from energy efficiency improvements (43 percent), transportation strategies (37 percent), and management strategies (20 percent). The CAP's energy-efficiency measures are primarily focused on the efficient use of electricity (retrofits of existing residential and commercial buildings, building system efficiency upgrades, streetlight upgrades, building shade tree planting, and increasing renewable energy use), which would also result in natural gas savings.

These measures for community-wide reductions were projected to reach the efficiency based emissions target of 4.5 MT CO₂e/service population/year by 2020 and 3.0 MT CO₂e/service population/year by 2030. However, this CAP does not address the steps needed to achieve reduction goals beyond 2030 since the existing General Plan planning horizon extends only to 2030. The CAP also offers implementation and

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performance evaluation strategies to monitor whether the implementation of a measure is on track to achieve the GHG reduction goals (Lodi 2014).

4.2.1.2 EXISTING CONDITIONS

Electricity and Natural Gas

The General Plan Area is served by the Pacifica Gas and Electricity Company (PG&E) and Lodi Electric Utility (LEU), which are described below.

Pacific Gas and Electric Company

Electricity

PG&E is a publicly traded utility company that generates, purchases, and transmits energy under contract with the CPUC. Its service territory is 70,000 square miles in area, roughly extending north to south from Eureka to Bakersfield, and east to west from the Sierra Nevada range to the Pacific Ocean. The electricity distribution system of PG&E consists of 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines (PG&E 2024). PG&E owns and maintains above and below ground networks of electric and gas transmission and distribution facilities throughout the city. Total electricity consumption in PG&E's service area was 104,695 gigawatt hours² in 2022 (CEC 2024a).

PG&E electricity is generated by a combination of sources such as coal-fired power plants, nuclear power plants, and hydro-electric dams, as well as newer sources of energy, such as wind turbines and photovoltaic plants or "solar farms." "The Grid," or bulk electric grid, is a network of high-voltage transmission lines, linked to power plants within the PG&E system. The distribution system, comprised of lower voltage secondary lines, is at the street and neighborhood level, and consists of overhead or underground distribution lines, transformers, and individual service "drops" that connect to the individual customer.

Natural Gas

PG&E gas transmission pipeline systems serve approximately 4.5 million natural gas customers in northern and central California (PG&E 2024). The system is operated under an inspection and monitoring program. The system operates in real time on a 24-hour basis, and includes leak inspections, surveys, and patrols of the pipelines. Total natural gas consumption in PG&E's service area was 4,449,195,887 therms for 2022 (CEC 2024b).

Lodi Electric Utility

Lodi Electric Utility (LEU) is a customer-owned, city-operated utility founded in 1910 and has provided reliable electricity for over 100 years (LEU 2024). In the 1960s, LEU joined forces with a group of 15 other customer owned utilities under the Northern California Power Agency (NCPA). More than 40 percent of

² A gigawatt is equal to one million kW.

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Lodi's power resources for 2022 were sourced from carbon-free resources. Sources of electricity sold by LEU in 2022, the latest year for which data are available, were (LEU 2022):

- 31.5 percent renewable, consisting mostly of geothermal and solar
- 13.3 percent large hydroelectric
- 19.6 percent natural gas
- 35.6 percent unspecified power³

Existing Electricity and Natural Gas Demand

The existing electricity and natural gas use demand in the General Plan Area is shown in Table 4.2-1, *Estimated Existing Electricity and Natural Gas Demand*.

TABLE 4.2-1 ESTIMATED EXISTING ELECTRICITY AND NATURAL GAS DEMAND

Land Use	Electricity Usage (kWh/year) ^a	Natural Gas Usage (Therms/year)
Residential	172,887,853	9,950,423
Nonresidential	279,827,157	7,095,812
Total	452,715,010	17,046,235

Note:

a. Based on energy and natural gas usage from PG&E Community Wide GHG Inventory Report (2018-2022) and LEU (2019-2023) for City of Lodi.
Source: PlaceWorks. See Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft SEIR.

Existing Transportation Fuels

California is among the top producers of petroleum in the country, with crude oil pipelines throughout the state connecting to oil refineries in the Los Angeles, San Francisco Bay, and Central Valley regions. In addition to producing petroleum, California is also one of the top consumers of fuel for transportation. California's transportation sector accounted for approximately 42 percent of California's total energy demand in 2022, amounting to approximately 2,915.8 trillion BTUs (US EIA 2022).

Table 4.2-2, *Existing Operation-Related Annual Fuel Usage*, shows the fuel usage associated with vehicle miles traveled (VMT) currently generated under existing conditions in the General Plan Area based on fuel usage data obtained from EMFAC2021, Version 1.0.2, and VMT data provided by Fehr & Peers. VMT is based on vehicle trips beginning and ending in the General Plan Area boundaries and from external/internal trips (i.e., trips that either begin or end in the General Plan Area).

³ Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

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TABLE 4.2-2 EXISTING OPERATION-RELATED ANNUAL FUEL USAGE

Gas		Diesel		Compressed Natural Gas		Electricity	
VMT ^a	Gallons	VMT ^a	Gallons	VMT ^a	Gallons	VMT ^a	kWh
96,483,374	4,329,779	11,878,607	1,633,107	116,588	22,347	1,224,613	436,275

Note:

a. VMTs based on daily VMT provided by Fehr & Peers (2024). VMT per year based on a conversion of VMT x 347 days per year to account for less travel on weekend, consistent with CARB statewide GHG emissions inventory methodology.

Source: EMFAC2021, version 1.0.2. (See Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft SEIR).

4.2.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in significant energy impacts if it would:

1. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
2. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.
3. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to energy.

The analysis also uses considerations identified in Appendix F, Energy Conservation, of the California Environmental Quality Act (CEQA) Guidelines, as appropriate, to assist in answering the Appendix G, Environmental Checklist Form, of the CEQA Guidelines, questions. The factors to evaluate energy impacts under standard 1 listed above include:

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials maybe discussed.
- The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the project on peak and base period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effects of the project on energy resources.
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

4.2.3 PROPOSED GENERAL PLAN POLICIES

The following goals and policies relevant to energy from the existing General Plan would be modified under the proposed project and would help reduce potential energy impacts.

Conservation Element

- **Goal C-G9:** Conserve energy and reduce per capita energy consumption.
- **Policy C-P58:** 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.
- **Policy C-P59:** 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.
- **Policy C-P60:** Reduce energy consumption within City government facilities and motor fleets.
- **Policy C-P61:** Encourage the use of passive and active solar devices such as solar collectors, solar cells, and solar heating systems into the design of local buildings. Promote voluntary participation in incentive programs to increase the use of solar photovoltaic systems in new and existing residential, commercial, institutional, and public buildings. Study the fiscal feasibility of an incentive program for property owners who install photovoltaic or comparable solar energy generating devices.
- **Policy C-P62:** Work with the California Energy Commission and other public and non-profit agencies to promote the use of programs that encourage developers to surpass Title 24 Energy Efficiency standards by utilizing renewable energy systems and more efficient practices that conserve energy, including, but not limited to natural gas, hydrogen or electrical vehicles. Offer incentives such as density bonus, expedited process, fee reduction/waiver to property owners and developers who exceed California Title 24 energy efficiency standards.
- **Policy C-P63:** Develop, adopt, and implement a heat island mitigation plan to reduce carbon dioxide emissions, smog, and the energy required to cool buildings. This plan should contain requirements and incentives for the use of cool roofs, cool pavements, and strategic shade tree placement, all of which may result in as much as 6-8° F temperature decrease from existing conditions.
- **Policy C-P78:** Review, support, and require implementation (as applicable) of San Joaquin Valley Air Pollution Control District guidance and recommendations (including those identified in the Guide for Assessing and Mitigating Air Quality Impacts) in regards to several key issues including:
 - Environmental Assessment;
 - Air Quality Mitigation Agreements;
 - Integrated Planning;
 - Air Quality Education;
 - Congestion Management/Transportation Control Measures;
 - Toxic and Hazardous Pollutant Emissions;

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- Fugitive Dust and PM10 Emissions; and
- Energy Conservation and Alternative Fuels.

Transportation Element

- **Goal T-G4:** Provide safe and convenient pedestrian, bicycle, and transit circulation.
- **Goal T-G8:** Encourage reduction in vehicle miles traveled as part of a strategy to reduce greenhouse gas emissions.
- **Policy T-P19:** To maintain walkability and pedestrian safety, consider roadway width and roadway design features such as islands, pedestrian refuges, pedestrian count-down signals, and other such mechanisms. This policy applies to new roadway construction as well as existing roadways where pedestrian safety issues may occur due to roadway design or width.
- **Policy T-P28:** Continue to support the efficient operation of the Lodi Station, and to explore opportunities to expand the multi-modal transportation services provided there.
- **Policy T-P33:** Require new development to provide transit improvements where appropriate and feasible, including direct pedestrian access to transit stops, bus turnouts and shelters, and local streets with adequate width to accommodate buses.
- **Policy T-P48:** Promote ridesharing and cooperate with regional travel demand management programs to reduce peak-hour traffic congestion and help reduce regional vehicle miles traveled.
- **Policy T-P49:** Promote employment opportunities within Lodi to reduce commuting to areas outside of Lodi.
- **Policy T-P50:** Continue to implement the *SB 743 Implementation Guidelines for City of Lodi January 2025* that reduces the total vehicle miles of traveled (VMT) by making efficient use of existing transportation facilities and by providing for more direct routes for pedestrians and bicyclists through the implementation of “smart growth” and sustainable planning principles.
- **Policy T-P51:** Periodically update the *City’s SB 743 Implementation Guidelines* to remain consistent with State standards, guidelines and regulations related to reduction of VMT.
- **Policy T-P52:** Within its *SB 743 Implementation Guidelines*, the City shall identify those types of projects for which VMT impacts are considered less-than-significant and shall also identify those types of projects that are likely to exceed the City’s VMT thresholds. Consistent with Policy T-P51, the *City’s SB 743 Guidelines* shall be periodically reviewed and updated as needed to maintain consistency with State VMT reduction guidance and regulations.
- **Policy T-P53:** Development projects shall be reviewed for consistency with the City’s then-current *SB 743 Implementation Guidelines*, as adopted at the time of development project review, or for consistency with any other VMT reduction criteria as may be adopted by the City and in effect at the time of project review.
- **Policy T-P54:** The City shall evaluate transportation improvement projects for consistency with the City’s *SB 743 Implementation Guidelines* or other VMT reduction criteria as may be adopted by the City and in effect at the time of the transportation improvement project review.

- **Policy T-P55:** For projects determined to exceed the City's VMT thresholds pursuant to the City's then-current *SB 743 Implementation Guidelines* or any other VMT reduction criteria as may be adopted by the City and in effect during project review, the City shall require feasible mitigation measures to reduce VMT impacts from any and all VMT threshold exceedance(s) identified.

Community Design and Livability Element

- **Policy 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.
- **Policy 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 to reduce annual per job.

These guidelines could be developed directly from the LEED (Leadership in Energy and Environmental Design) system developed by the U.S. Green Building Council, the California-based Build It Green GreenPoint rating system, or an equivalent green building program.

Growth Management and Infrastructure Element

- **Policy GM-P20:** Continue to improve waste diversion rates through recycling and resource conservation measures. Support waste reduction and recycling programs through public education.

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4.2.4 ENVIRONMENTAL IMPACTS

4.2.4.1 METHODOLOGY

The energy and fuel usage information provided in this section are based on the following.

- **Building Energy:** Energy use for residential and nonresidential land uses in the General Plan Area were modeled using electricity and natural gas data provided by PG&E (years 2018 through 2022) and LEU (years 2019 through 2023). Due to the 15/15 Rule, electricity use data for industrial land uses was aggregated with the nonresidential land uses in the data provided by PG&E and LEU.⁴ Forecasts are adjusted for increases in population for residential electricity and natural gas use and non-residential square footage for non-residential electricity and natural gas use in the General Plan Area. A weighted average of carbon intensity factors was used for year 2020 and 2045 are based on the 2022 CalEEMod User's Guide, Appendix G, and total electricity usage between PG&E and LEU (CAPCOA 2022).
- **On-Road Fuel Use:** Transportation fuel use was modeled using emissions data from CARB's EMFAC2021 V1.0.2 web database. Fuel use was based on Origin-Destination (O-D) Method VMT data provided by Fehr & Peers (see Appendix B) for calendar years 2020 (existing) and 2045 emission rates.

ENE-1	The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.
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The 2009 EIR assessed the energy demand for electricity and gas services in Section 3.6, *Climate Change and Greenhouse Gases*. The 2009 EIR found that population and employment growth envisioned by the approved project may increase energy and gas demand. However, compliance with energy saving building codes, the use of alternative modes of transportation, and existing General Plan policies would reduce wasteful energy consumption to a less-than-significant level.

Short-Term Construction Impacts

Development projects constructed under the proposed project would create temporary demands for electricity. Natural gas is not generally required to power construction equipment, and therefore is not anticipated during construction phases. Electricity use would fluctuate according to the phase of construction. Additionally, it is anticipated that most electric-powered construction equipment would be

⁴ The 15/15 Rule was adopted by the California Public Utilities Commission in the Direct Access Proceeding (CPUC Decision 97-10-031) to protect customer confidentiality. The 15/15 rule requires that any aggregated information provided by a utility must be made up of at least 15 customers, and a single customer's load must be less than 15 percent of an assigned category. If the number of customers in the compiled data is below 15, or if a single customer's load is more than 15 percent of the total data, categories must be combined before the information is released. The Rule further requires that if the 15/15 Rule is triggered for a second time after the data have been screened once already using the 15/15 Rule, the customer be dropped from the information provided.

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hand tools (e.g., power drills, table saws, compressors) and lighting, which would result in minimal electricity usage during construction activities.

Development projects would also temporarily increase demands for energy associated with transportation. Transportation energy use depends on the type and number of trips, VMT, fuel efficiency of vehicles, and travel mode. Energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel or gasoline. The use of energy resources by these vehicles would fluctuate according to the phase of construction and would be temporary. It is anticipated that most off-road construction equipment, such as those used during demolition and grading, would be gas or diesel powered. In addition, all operation of construction equipment would cease upon completion of project construction.

Furthermore, the construction contractors would be required to minimize nonessential idling of construction equipment during construction in accordance with the California Code of Regulations Title 13, Chapter 9, Article 4.8, Section 2449. Such required practices would limit wasteful and unnecessary energy consumption. Also, future projects within the General Plan Area would be similar to projects currently in development under the approved project. Thus, the construction processes for future development projects accommodated under the proposed project would be similar to the construction processes of current development projects and projects accommodated under the approved project.

Overall, there would be no unusual project characteristics anticipated that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites under the approved project. Therefore, short-term construction activities that occur as a result of implementation of the proposed project would not result in inefficient, wasteful, or unnecessary fuel consumption. The proposed project would not result in new or a substantial increase in magnitude of impacts compared to that of the approved project.

Long-Term Impacts During Operation

Operation of potential future development accommodated under the proposed project would create additional demands for electricity and natural gas compared to existing conditions. Operational use of electricity and natural gas would include heating, cooling, and ventilation of buildings; water heating; operation of electrical systems; use of on-site equipment and appliances; lighting; and charging electric vehicles. Land uses accommodated under the proposed project would also result in demands for transportation fuels (e.g., gasoline, diesel, compressed natural gas, and electricity) associated with on-road vehicles.

Non-transportation Energy

Electrical service to the General Plan Area is provided by PG&E and LEU through connections to existing off-site electrical lines and new on-site infrastructure. As shown in Table 4.2-3, *Year 2045 Forecast Electricity Consumption*, by year 2045, electricity use in the General Plan Area would decrease by 7,915,023 kWh/year, or approximately 1 percent, compared to the approved project.

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TABLE 4.2-3 YEAR 2045 FORECAST ELECTRICITY CONSUMPTION

Land Use	Electricity Usage (kWh per year) ^a		
	Approved Project	Proposed Project	Net Change
Residential	216,707,886	214,220,730	-2,487,156
Nonresidential	329,760,099	324,332,232	-5,427,867
Total	546,467,984	538,552,961	-7,915,023

Note:

a. Residential energy and nonresidential energy forecasts do not account for reductions due to increase in energy efficiency from compliance with the Building Energy Efficiency Standards and CALGreen.

Source: PlaceWorks. See Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft SEIR.

As shown in Table 4.2-4, *Year 2045 Forecast Natural Gas Consumption*, natural gas use under the proposed project totals 20,553,669 therms annually. By 2045, natural gas use in the General Plan Area would decrease by 280,785 therms annually, or approximately 1 percent, compared to the approved project.

TABLE 4.2-4 YEAR 2045 FORECAST NATURAL GAS CONSUMPTION

Land Use	Natural Gas Usage (Therms per year) ^a		
	Approved Project	Proposed Project	Net Change
Residential	12,472,450	12,329,304	-143,146
Nonresidential	8,362,004	8,224,365	-137,639
Total	20,834,454	20,553,669	-280,785

Note:

a. Residential energy and nonresidential energy forecasts do not account for reductions due to increase in energy efficiency from compliance with the Building Energy Efficiency Standards and CALGreen.

Source: PlaceWorks. See Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft SEIR.

As shown in Table 4.2-3 and Table 4.2-4, the electricity and natural gas demand for the potential future development in the proposed project's General Plan Area would slightly decrease compared to the approved project. Additionally, potential future development would be required to comply with the current and future updates to the Building and Energy Efficiency Standards (California Code of Regulations, Title 24, Part 6) and the California Green Building Code or CALGreen (California Code of Regulations, Title 24, Part 11), which would contribute to reducing the energy demands. New and replacement buildings would also use new energy-efficient appliances and equipment, pursuant to the Appliance Efficiency Regulations (Title 20, California Code of Regulations, Sections 1601 through 1609), which would ensure the use of efficient and non-wasteful electricity and natural gas consumption. It is anticipated that each update to the Building Energy Efficiency Standards and CALGreen will result in greater building energy efficiency and move closer toward buildings achieving ZNE. Thus, new and replacement buildings in compliance with these standards would generally have greater energy efficiency than existing buildings.

In addition to the Building Energy Efficiency Standards and CALGreen, the proposed project includes relevant and modified policies from the existing Lodi General Plan to increase energy efficiency and reduce wasteful, inefficient use of energy resources. The policies in the Conservation (C) and Community Design and Livability (CD) Element focus on promoting energy-efficient development patterns in existing and future development and expanding renewable energy strategies (Policy C-P58, C-P59, C-P60 through C-P62, CD-P40). Encouraging sustainable and energy-efficient building practices and using more renewable energy

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strategies will further reduce energy consumption in the General Plan Area and move closer to achieving ZNE.

Transportation Energy

The growth accommodated under the proposed project would consume transportation energy from the use of motor vehicles (e.g., gasoline, diesel, compressed natural gas, and electricity). Table 4.2-5, *Operation-Related Annual Fuel Usage: Net Change from Approved Project*, shows the net change in VMT, fuel usage, and fuel efficiency of the proposed project compared to the approved project.

TABLE 4.2-5 OPERATION-RELATED ANNUAL FUEL USAGE: NET CHANGE FROM APPROVED PROJECT

Land Use	Natural Gas Usage (Therms per year) ^a		
	Approved Project	Proposed Project	Net Change
Gasoline			
VMT ^a	116,502,556	110,880,704	-5,621,852
Gallons	3,713,858	3,534,645	-179,213
Miles Per Gallon	31.37	31.37	NA
Diesel			
VMT ^a	12,159,653	11,572,887	-586,766
Gallons	1,478,250	1,406,917	-71,333
Miles Per Gallon	8.23	8.23	NA
Compressed Natural Gas			
VMT ^a	128,083	121,902	-6,181
Gallons	17,420	20,613	3,193
Miles Per Gallon	7.35	5.91	NA
Electricity			
VMT ^a	16,581,715	15,781,561	-800,154
kWh	4,469,210	4,253,548	-215,663
Miles Per kWh	3.71	3.71	NA
Total VMT	145,372,007	138,357,055	-7,014,952

Note:

a. Based on daily VMT provided by Fehr & Peers (2024). VMT per year based on a conversion of VMT x 347 days per year to account for less travel on weekend, consistent with CARB statewide GHG emissions inventory methodology (CARB 2008).

Source: EMFAC2021. Version 1.0.2. PlaceWorks. See Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft SEIR.

As shown in Table 4.2-5, implementation of the proposed project would result in an overall decrease in annual VMT and fuel usage for all vehicle types primarily due to the reduction in population growth between the approved and proposed project (see Table 3-2, *2045 General Plan Planning Horizon Forecast*, of this Draft SEIR). Fuel efficiency will be the same as the approved project, and implementation of the proposed project would not result in less efficiency in transportation fuel usage.

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Additionally, the VMT per service population rate (VMT/SP)⁵ would decrease under the proposed project from 4.66 VMT/SP to 4.56 VMT/SP, which would increase on-road transportation energy efficiency (see Appendix B to this SEIR). A decrease in VMT/SP indicates fewer vehicle trips and/or shorter trip distances despite a growing service population in the General Plan Area. Factors contributing to the decrease in VMT/SP include better jobs-housing ratio, implementation of more public transit options in the General Plan Area, and amenities closer to where residents live.

Fuel efficiency of on-road vehicles after buildout would on average improve over time, resulting in an overall lower per capita fuel consumption. The improvement in fuel efficiency would be attributable to regulatory compliance (e.g., CAFE standards), resulting in new cars that are more fuel efficient and the attrition of older, less fuel-efficient vehicles. The CAFE standards are not directly applicable to residents or land use development projects, but to car manufacturers. Thus, residents and employees of Lodi do not have direct control in determining the fuel efficiency of vehicles manufactured and that are made available. However, compliance with the CAFE standards by car manufacturers would ensure that vehicles produced in future years have greater fuel efficiency and would generally result in an overall benefit of reducing fuel usage by providing the population of the General Plan Area more fuel-efficient vehicle options. Lastly, as electricity consumed in California is required to meet the increasing renewable energy mix requirements under the State's RPS and accelerated by SB 1020, greater proportions of electricity consumed for transportation energy demand (i.e., to power electric vehicles) envisioned under the proposed project would be generated from renewable energy sources rather than fossil fuels through 2045 (e.g., individual photovoltaic systems, purchased electricity from a community choice aggregation, and/or purchased electricity from PG&E and LEU that is generated from renewable sources).

In addition to regulatory compliance that would contribute to more fuel-efficient vehicles and less demand in fuels, the proposed project includes relevant and modified policies previously listed that would contribute to efficient energy and fuel use. Because transportation is a leading source of energy use in the General Plan Area, many goals and policies in the existing Lodi General Plan's Transportation (T) Element contribute to minimizing overall VMT, and thus fuel usage associated with the proposed project. Transportation Element Goal T-G4 and Goal T-G8, Policy T-P19, T-P28, T-P33, T-P50, T-P51, T-P52, T-P53, T-P54, and T-P55 would promote energy conservation from the transportation sector by increasing safe and sufficient transit, bicycle, and pedestrian facilities to reduce automobile use and VMT. Transportation Element Goal T-G8 and Policy T-P48 focus on minimizing VMT through land use and transportation planning efforts that work in combination to reduce commuting. Placing residential and nonresidential uses near each other to create self-sustaining communities and neighborhoods and offering mixed-used developments could result in shorter distances traveled between where people work and live and to amenities. The shorter distances reduce VMT by reducing the average vehicle trip distance traveled. It also encourages people to forego vehicle travel altogether and either bike, walk, or take public transportation, which would also contribute to minimizing VMT. Collectively, these goals and policies listed previously would minimize overall VMT, and thus fuel usage associated with potential future development accommodated under the proposed project.

⁵ Service population is residents plus employees.

Summary

Overall, compliance with federal, state, and local regulations (e.g., Building Energy Efficiency Standards, CALGreen, RPS, and CAFE standards) would increase building energy efficiency and vehicle fuel efficiency and reduce building energy demand and transportation-related fuel usage. Additionally, the proposed project includes goals and policies related to land use and transportation planning and design, energy efficiency, public and active transit, and renewable energy generation that will contribute to minimizing building and transportation-related energy demands overall and demands on nonrenewable sources of energy. Implementation of proposed policies under the proposed project in conjunction with and complementary to regulatory requirements, would ensure that energy demand associated with growth under the proposed project would not be inefficient, wasteful, or unnecessary. Therefore, energy impacts associated with implementation and operation of land uses accommodated under the proposed project would be less than significant and no mitigation measures are required. The proposed project would not result in new or a substantial increase in magnitude of impacts compared to the approved project.

Level of Significance Without Mitigation: Impact ENE-1 would be less than significant.

ENE-2	The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.
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The 2009 EIR did not identify impacts related to consistency with plans for renewable energy or energy efficiency because this was not a threshold in the CEQA Guidelines Appendix G checklist until January 1, 2019, when the Natural Resources Agency updated Appendix G of the CEQA Guidelines. Applicable plans relevant to the proposed project include the California Renewables Portfolio Standard Program and the City's CAP.

California Renewables Portfolio Standard Program

The state's electricity grid is transitioning to renewable energy under California's RPS Program. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. In general, California has RPS requirements of 33 percent renewable energy by 2020 (SB X1-2), 40 percent by 2024 (SB 350), 50 percent by 2026 (SB 100), 60 percent by 2030 (SB 100), and 90 percent by 2035 (SB 1020), and 100 percent carbon free by 2045 (SB 100 and SB 1020). The statewide RPS requirements do not directly apply to individual development projects, but to utilities and energy providers such as PG&E and LEU, whose compliance with RPS requirements would contribute to the State of California objective of transitioning to renewable energy.

The land uses accommodated under the proposed project would be required to comply with the current and future iterations of the Building Energy Efficiency Standards and CALGreen. Furthermore, as described for impact discussion ENE-1, the proposed project includes Conservation and Community Design and Livability Element goals and policies, which would support the statewide goal of transitioning the electricity grid to renewable sources and employ best practices regarding energy-saving standards. Therefore, implementation of the proposed project would not conflict with or obstruct implementation of California's RPS program and impact would be less than significant. The proposed project would not result in new or a substantial increase in magnitude of impacts compared to the approved project.

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City of Lodi Climate Action Plan

The City's CAP was adopted on November 20, 2014 as part of the General Plan process to serve as a guide for a communitywide effort to increase energy efficiency and reduce GHG emissions. This CAP provides a strategic framework for the development of measures, policies and programs across all sectors that aim to reduce GHG emissions and focus on energy conservation across communitywide and municipal government operations. Most reductions come from energy efficiency improvements (43 percent), transportation strategies (37 percent), and management strategies (20 percent). The CAP's energy efficiency measures are primarily focused on the efficient use of electricity (retrofits of existing residential and commercial buildings, building system efficiency upgrades, streetlight upgrades, building shade tree planting, and increasing renewable energy use), which would also result in natural gas savings (Lodi 2014).

The proposed project includes relevant and modified goals and policies previously listed under Impact Discussion ENE-1 that would increase energy efficiency and use of renewable sources of energy throughout the city. These goals and policies would contribute to the reduction in energy demand throughout the city. Thus, implementation of the proposed project would not interfere with the energy-related goals and measures of the City's CAP, and impacts would be less than significant.

Level of Significance Without Mitigation: Impact ENE-2 would be less than significant.

4.2.5 CUMULATIVE IMPACTS

ENE-3	Implementation of the proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to energy.
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Cumulative impacts would occur if a series of actions lead to a wasteful, inefficient, or unnecessary consumption of energy resources or a conflict with or obstruction of a State or local plan for renewable energy and energy efficiency. All the development projects within the vicinity of the General Plan Area are within the service area of PG&E and LEU. These projects would result in a long-term increase in operational energy demand for electricity and natural gas use associated with population growth. In addition, construction activities would require the use of energy for purposes such as the operation of construction equipment and tools, and construction of development projects may overlap. However, all projects developed within the PG&E and LEU service area would implement the requirements of the current and future iterations of the Building and Energy Efficiency Standards and CALGreen. Furthermore, new buildings would use new energy-efficient appliances and equipment, pursuant to the Appliance Efficiency Regulations.

In addition, vehicles would be subject to the USEPA CAFE standards for vehicular fuel efficiency, and average corporate fuel economy continues to increase as a result of State and federal laws, including the Pavley Advanced Clean Cars program. Furthermore, as listed in impact discussion ENE-2, the proposed project includes Transportation Element goals and policies that would contribute toward minimizing inefficient, wasteful, or unnecessary transportation energy consumption. These goals and policies, as well as the other Conservation and Community Design and Livability Element goals and policies listed in impact discussion

ENE-1 would ensure compliance with state, regional, or local plans for renewable energy. Therefore, the proposed project would not result in a cumulatively considerable impact to energy and cumulative impacts would be less than significant.

Level of Significance Without Mitigation: Impact ENE-3 would be less than significant.

4.2.6 MITIGATION MEASURES

Mitigation Measures from the 2009 EIR

The 2009 EIR did not identify any significant energy impacts.

New Mitigation Measures

No significant energy impacts were identified, and no mitigation measures are warranted.

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4.2.7 REFERENCES

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GREENHOUSE GAS EMISSIONS

4.3 GREENHOUSE GAS EMISSIONS

This section describes the potential impacts from greenhouse gas (GHG) emissions associated with the adoption and implementation of the City of Lodi General Plan Update (proposed project) in comparison to the existing General Plan (approved project) and impacts evaluated in the 2009 Environmental Impact Report (EIR). This section describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential GHG emissions impacts, and identifies General Plan policies and feasible mitigation measures that could mitigate potentially significant impacts.

The analysis in this section is based on buildout of the proposed project, as modeled using the California Air Resources Board's (CARB's) Emissions Factor Model (EMFAC2021), the Off-Road Emissions Factor Model (OFFROAD2021), energy use provided by the Pacific Gas and Electric Company (PG&E) and Lodi Electric Utility (LEU), solid waste disposal from CalRecycle, water use and wastewater generation identified in Section 4.10, *Utilities and Service Systems*, as well as trip generation and vehicle miles traveled (VMT) provided by Fehr & Peers. The GHG emissions modeling is included in Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft Subsequent Environmental Report (SEIR).

4.3.1 ENVIRONMENTAL SETTING

4.3.1.1 TERMINOLOGY

The following are definitions for terms used throughout this section.

- **Greenhouse gases (GHG).** Gases in the atmosphere that absorb infrared light, thereby retaining heat in the atmosphere and contributing to a greenhouse effect.
- **Global warming potential (GWP).** Metric used to describe how much heat a molecule of a GHG absorbs relative to a molecule of carbon dioxide (CO₂) over a given period of time (20, 100, and 500 years). CO₂ has a GWP of 1.
- **Carbon dioxide-equivalent (CO₂e).** The standard unit to measure the amount of GHGs in terms of the amount of CO₂ that would cause the same amount of warming. CO₂e is based on the GWP ratios between the various GHGs relative to CO₂.
- **MTCO₂e.** Metric ton of CO₂e.
- **MMTCO₂e.** Million metric tons of CO₂e.

4.3.1.2 GREENHOUSE GASES AND CLIMATE CHANGE

Human activities contribute to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. The primary source of GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor, carbon dioxide (CO₂), methane (CH₄), and ozone (O₃)—that may cause an increase in global average temperatures observed within the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent

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include nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.^{1,2}

The major GHGs are briefly described as follows:

- **Carbon dioxide (CO₂)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH₄)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.
- **Nitrous oxide (N₂O)** is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have a stronger greenhouse effect than others. These are referred to as high global warming potential (GWP) gases. The GWP of applicable GHG emissions are shown in Table 4.3-1, GHG Emissions and Their Relative Global Warming Potential Compared to CO₂. The GWP is used to convert GHGs to CO₂-equivalence (CO₂e) to show the relative potential that different GHGs have to contribute to the greenhouse effect. For example, under IPCC's Fifth Assessment Report (AR5) GWP values for methane (CH₄), a project that generates 10 metric tons (MT) of CH₄ would be equivalent to 280 MT of CO₂.

¹ Water vapor (H₂O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant because it is considered part of the feedback loop of changing radiative forcing rather than a primary cause of change.

² Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. The share of black carbon emissions from transportation is dropping rapidly and is expected to continue to do so between now and 2030 as a result of California's air quality programs. The remaining black carbon emissions will come largely from woodstoves/fireplaces, off-road applications, and industrial/commercial combustion (CARB 2022). However, state and national GHG inventories do not include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

GREENHOUSE GAS EMISSIONS

TABLE 4.3-1 GHG EMISSIONS AND THEIR RELATIVE GLOBAL WARMING POTENTIAL COMPARED TO CO₂

GHGs	Fourth Assessment Report Global Warming Potential Relative to CO ₂ ^a	Fifth Assessment Report Global Warming Potential Relative to CO ₂ ^a	Sixth Assessment Report Global Warming Potential Relative to CO ₂ ^a
Carbon Dioxide (CO ₂)	1	1	1
Methane (CH ₄) ^b	25	28	30
Nitrous Oxide (N ₂ O)	298	265	273

Notes: The IPCC published updated GWP values in its Sixth Assessment Report (AR6) that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO₂. However, GWP values identified in AR5 are used by the 2022 Scoping Plan for long-term emissions forecasting. Therefore, this analysis utilizes AR5 GWP values consistent with the current Scoping Plan.

a. Based on 100-year time horizon of the GWP of the air pollutant relative to CO₂.

b. The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO₂ is not included.

Source: IPCC 2007, 2013, and 2022.

Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHGs in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and the quantity of climate change pollutants in the Earth's atmosphere that is attributable to human activities.

The recent IPCC Sixth Assessment Report (AR6) summarizes the latest scientific consensus on climate change. It finds that atmospheric concentrations of CO₂ have increased by 50 percent since the Industrial Revolution and continue to increase at a rate of two parts per million each year. By the 2030s, and no later than 2040, the world will exceed 1.5°C warming (CARB 2022). These recent changes in the quantity and concentration of climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants (CAT 2006). In the past, gradual changes in the Earth's temperature changed the distribution of species, availability of water, and other conditions. Human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime (IPCC 2007).

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are hard to predict. Projections of climate change depend heavily upon future human activity. Therefore, climate models are based on different emission scenarios that account for historical trends in emissions and on observations of the climate record that assess the human influence of the trend and projections for extreme weather events. Climate-change scenarios are affected by varying degrees of uncertainty. For example, there are varying degrees of certainty on the magnitude of the trends for:

- Warmer and fewer cold days and nights over most land areas.
- Warmer and more frequent hot days and nights over most land areas.
- An increase in the frequency of warm spells and heat waves over most land areas.

GREENHOUSE GAS EMISSIONS

- An increase in frequency of heavy precipitation events (or proportion of total rainfall from heavy falls) over most areas.
- Larger areas affected by drought.
- Intense tropical cyclone activity increases.
- Increased incidence of extreme high sea level (excluding tsunamis).

Potential Climate Change Impacts for California

There is at least a greater than 50 percent likelihood that global warming will reach or exceed 1.5°C in the near-term, even for the very low GHG emissions scenario (IPCC 2022). Climate change is already impacting California and will continue to affect it for the foreseeable future. For example, the average temperature in most areas of California is already 1°F (~0.56°C) higher than historical levels, and some areas have seen average increases in excess of 2°F (~1.1°C) (CalOES 2020). The California Fourth Climate Change Assessment identifies the following climate change impacts under a business-as-usual scenario, in which no new actions are taken to curb GHG emissions:

- Annual average daily high temperatures in California are expected to rise by 2.7°F by 2040, 5.8°F by 2070, and 8.8°F by 2100 compared to observed and modeled historical conditions. These changes are statewide averages. Heat waves are projected to become longer, more intense, and more frequent.
- Warming temperatures are expected to increase soil moisture loss and lead to drier seasonal conditions. Summer dryness may become prolonged, with soil drying beginning earlier in the spring and lasting longer into the fall and winter rainy season.
- High heat increases the risk of death from cardiovascular, respiratory, cerebrovascular, and other diseases.
- Droughts are likely to become more frequent and persistent through 2100.³
- Climate change is projected to increase the strength of the most intense precipitation and storm events affecting California.
- Mountain ranges in California are already seeing a reduction in the percentage of precipitation falling as snow. Snowpack levels are projected to decline significantly by 2100 due to reduced snowfall and faster snowmelt.
- Marine layer clouds are projected to decrease, though more research is needed to better understand their sensitivity to climate change.
- Extreme wildfires (i.e., fires larger than 10,000 hectares or 24,710 acres) would occur 50 percent more frequently. The maximum area burned statewide may increase 178 percent by the end of the century.
- Exposure to wildfire smoke is linked to increased incidence of respiratory illness.
- Sea level rise is expected to continue to increase erosion of beaches, cliffs, and bluffs. (CalOES 2020)

³ Overall, California has become drier over time, with five of the eight years of severe to extreme drought occurring between 2007 and 2016, and with unprecedented dry years in 2014 and 2015 (OEHHA 2018). Statewide precipitation has become increasingly variable from year to year, with the driest consecutive four years occurring from 2012 to 2015 (OEHHA 2018).

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Global climate change risks to California are shown in Table 4.3-2, *Summary of GHG Emissions Risks to California*, and include impacts to public health, water resources, agriculture, coastal sea level, forest and biological resources, and energy.

TABLE 4.3-2 SUMMARY OF GHG EMISSIONS RISK TO CALIFORNIA

Impact Category	Potential Risks
Public Health Impacts	Heat waves will be more frequent, hotter, and longer Poor air quality made worse Higher temperatures increase ground-level ozone (i.e., smog) levels
Water Resource Impacts	Decreasing Sierra Nevada snow pack Challenges in securing adequate water supply Potential reduction in hydropower Loss of winter recreation
Agricultural Impacts	Increasing temperature Increasing threats from pests and pathogens Expanded ranges of agricultural weeds Declining productivity Irregular blooms and harvests
Coastal Sea Level Impacts	Accelerated sea level rise Increasing coastal floods Shrinking beaches Worsened impacts on infrastructure
Forest and Biological Resource Impacts	Increased risk and severity of wildfires Lengthening of the wildfire season Movement of forest areas Conversion of forest to grassland Declining forest productivity Increasing threats from pest and pathogens Shifting vegetation and species distribution Altered timing of migration and mating habits Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction in hydropower Increased energy demand

Sources: CEC 2006, 2009; CCCC 2012; CNRA 2014; CalOES 2020.

4.3.1.3 REGULATORY FRAMEWORK

This section summarizes key federal, State, regional, and local regulations and programs related to GHG emissions.

Federal Regulations

The United States Environmental Protection Agency (USEPA) announced on December 7, 2009 that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings did not themselves impose any emission reduction requirements but allowed the EPA to finalize the GHG standards

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proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (USEPA 2009).

To regulate GHGs from passenger vehicles, the USEPA was required to issue an endangerment finding. The finding identified emissions of six key GHGs—CO₂, CH₄, N₂O, hydrofluorocarbons, perfluorocarbons, and SF₆—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the project's GHG emissions inventory because they constitute the majority of GHG emissions and, according to guidance by the San Joaquin Valley Unified Air Pollution Control District (SJVAPCD), are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

United States Mandatory Report Rule for GHGs (2009)

- In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 metric tons (MT) or more of CO₂e per year are required to submit an annual report.

Update to Corporate Average Fuel Economy Standards (2021 to 2035)

- The federal government issued new Corporate Average Fuel Economy (CAFE) standards in 2012 for model years 2017 to 2025, which required a fleet average of 54.5 miles per gallon in 2025. On March 30, 2020, the USEPA finalized an updated CAFE and GHG emissions standards for passenger cars and light trucks and established new standards covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021 to 2026. Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 MPG for model year 2026 vehicles (85 Federal Register 24174 (April 30, 2020)).
- On December 21, 2021, under direction of EO 13990 issued by President Biden, the National Highway Traffic Safety Administration repealed Safer Affordable Fuel Efficient Vehicles Rule Part One, which had preempted state and local laws related to fuel economy standards. In addition, the NHTSA finalized new fuel standards in response to EO 13990. Fuel efficiency under the standards will increase 8 percent annually for model years 2024 to 2025 and 10 percent annually for model year 2026. Overall, the new CAFE standards require a fleet average of 49 mpg for passenger vehicles and light trucks for model year 2026, which would be a 10 mpg increase relative to model year 2021 (NHTSA 2022).
- On June 7, 2024, NHTSA announced final CAFE standards for passenger cars and light trucks built in model years 2027-2031 and final fuel efficiency standards for heavy-duty pickup trucks and vans built in model years 2030-2035. The final rules establish standards that would require an industry fleet-wide average of approximately 50.4 mpg for passenger cars and light trucks in model year 2031, by increasing fuel economy by 2 percent year over year for passenger cars (model years 2027-2031) and for light trucks (model years 2029-2031). For heavy-duty pickup trucks and vans, the final rule would increase fuel efficiency at a rate of 10 percent per year (model years 2030-2032) and 8 percent per year (model years 2033-2035) (NHTSA 2024).

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USEPA Regulation of Stationary Sources under the Clean Air Act (Ongoing).

- Pursuant to its authority under the Clean Air Act, the EPA has developed regulations for new, large, stationary sources of emissions such as power plants and refineries. Under the 2013 Climate Action Plan, the USEPA was directed to develop regulations for existing stationary sources as well. On June 19, 2019, the EPA issued the final Affordable Clean Energy (ACE) rule, which became effective on August 19, 2019. The ACE rule was crafted under the Energy Independence Executive Order. It officially rescinded the Clean Power Plan rule previously issued during the former Administration and set emissions guidelines for states in developing plans to limit CO₂ emissions from coal-fired power plants. The Affordable Clean Energy rule was vacated by the United States Court of Appeals for the District of Columbia Circuit on January 19, 2021. In 2023, EPA extended the due date for state plans under the ACE rule until April 15, 2024 (USEPA 2024).

State Regulations

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in EOs S-03-05, B-30-15, and B-55-18, Assembly Bill (AB) 32, and Senate Bill (SB) 32.

Executive Order S-03-05

- Executive Order S-03-05, signed June 1, 2005, set the following GHG reduction targets for the state:
- 2000 levels by 2010.
- 1990 levels by 2020.
- 80 percent below 1990 levels by 2050.

Assembly Bill 32

- AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in EO S-03-05. CARB prepared the 2008 Scoping Plan to outline a plan to achieve the GHG emissions reduction targets of AB 32.

Executive Order B-20-15

- Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions within the state to 40 percent of 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaptation strategy, *Safeguarding California*, in order to ensure climate change is accounted for in state planning and investment decisions.

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Senate Bill 32 and Assembly Bill 197

- In September 2016, SB 32 and AB 197 were signed into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direct emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

Executive Order B-55-18

- EO B-55-18, signed September 10, 2018, sets a goal “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.” EO B-55-18 directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO₂e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

2022 Climate Change Scoping Plan

- CARB adopted the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on December 15, 2022, which lays out a path to achieve carbon neutrality by 2045 or earlier and to reduce the state’s anthropogenic GHG emissions (CARB 2022). The Scoping Plan was updated to address the carbon neutrality goals of EO B-55-18 and the ambitious GHG reduction target as directed by AB 1279. Previous scoping plans focused on specific GHG reduction targets for industrial, energy, and transportation sectors—to meet 1990 levels by 2020, and then the more aggressive 40 percent below that for the 2030 target. This Plan expands upon earlier scoping plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. Carbon neutrality takes it one step further by expanding actions to capture and store carbon, including through natural and working lands and mechanical technologies, while drastically reducing anthropogenic sources of carbon pollution at the same time.

The path forward was informed by the recent IPCC AR6; the measures would achieve 85 percent below 1990 levels by 2045 in accordance AB 1279. CARB’s 2022 Scoping Plan identifies strategies as shown in Table 4.3-3, *Priority Strategies for Local Government Climate Action Plans*, that would be most impactful at the local level for ensuring substantial process toward the State’s carbon neutrality goals.

TABLE 4.3-3 PRIORITY STRATEGIES FOR LOCAL GOVERNMENT CLIMATE ACTION PLANS

Priority Area	Priority Strategies
Transportation Electrification	Convert local government fleets to zero-emission vehicles (ZEV) and provide EV charging at public sites.
	Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans).

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TABLE 4.3-3 PRIORITY STRATEGIES FOR LOCAL GOVERNMENT CLIMATE ACTION PLANS

Priority Area	Priority Strategies
Vehicle Miles Traveled (VMT) Reduction	Reduce or eliminate minimum parking standards.
	Implement Complete Streets policies and investments, consistent with general plan circulation element requirements.
	Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.
	Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking.
	Implement parking pricing or transportation demand management pricing strategies.
	Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing allowable density of the neighborhood).
	Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert “greenfield” land to urban uses (e.g., green belts, strategic conservation easements)
Building Decarbonization	Adopt all-electric new construction reach codes for residential and commercial uses.
	Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers).
	Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances.
	Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing)
	Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings).

Source: CARB 2022.

- Residential and mixed-use development projects including the following key project attributes would accommodate growth in a manner consistent with State GHG reduction and equity prioritization goals. This is the first approach the State recommends for qualitatively determining whether a proposed residential or mixed-use residential development would align with the State’s climate goals while simultaneously advancing fair housing.
- **Transportation Electrification:**
 - Provide EV charging infrastructure that, at a minimum, meets the most ambitious voluntary standards in the California Green Building Standards Code at the time of project approval.
- **Vehicle Miles Traveled (VMT) Reduction:**
 - Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer).
 - Does not result in the loss or conversion of the State’s natural and working lands;
 - Consists of transit-supportive densities (minimum of 20 residential dwelling units/acre), or is in proximity to existing transit stops (within a half mile), or satisfies more detailed and stringent criteria specified in the region’s Sustainable Communities Strategy (SCS);

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- Reduces parking requirements by:
 - Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or
 - Providing residential parking supply at a ratio of <1 parking space per dwelling unit; or
 - For multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.
 - At least 20 percent of the units are affordable to lower-income residents;
 - Result in no net loss of existing affordable units.
- **Building Decarbonization:**
 - Use all electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking.
- The second approach to project-level alignment with State climate goals is net zero GHG emissions, especially for new residential development. The third approach to demonstrating project-level alignment with State climate goals is to align with GHG thresholds of significance, which many local air quality management and air pollution control districts have developed or adopted (CARB 2022).

Assembly Bill 1279

AB 1279, signed in September 2022, codified the carbon neutrality targets of EO B-55-18 for year 2045 and sets a new legislative target for year 2045 of 85 percent below 1990 levels for anthropogenic GHG emissions. CARB will be required to update the scoping plan to identify and recommend measures to achieve the net-zero and GHG emissions-reduction goals.

Senate Bill 375

The Sustainable Communities and Climate Protection Act, commonly known by its legislative bill number SB 375, was adopted in 2008 to connect the GHG emissions reduction targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, this Act required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPO), also known as Regional Transportation Planning Agencies (RTPAs). The San Joaquin Valley RTPAs is the RTPA/MPO for the San Joaquin region, which includes the Council of Fresno County Governments, Kern Council of Governments, Kings County Association of Governments, Madera County Transportation Commission, Merced County Association of Governments, San Joaquin Council of Governments, Stanislaus Council of Governments and Tulare County Association of Governments (San Joaquin Valley RPA 2024). Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the RTPA/MPOs rather than a total magnitude reduction target.

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2017 Update to the SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. In June 2017, CARB released updated targets and technical methodology and recently released another update in February 2018, which became effective in October 2018. CARB adopted the updated targets and methodology on March 22, 2018. All SCSs adopted after October 1, 2018, are subject to these new targets. The updated targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update, while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated Sustainable Communities and Climate Protection Act (SB 375) targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks compared to 2005. This excludes reductions anticipated from implementation of state technology and fuels strategies and any potential future state strategies such as statewide road user pricing. The proposed targets call for greater per-capita GHG emission reductions from Sustainable Communities and Climate Protection Act (SB 375) than are currently in place, which for 2035 translates into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCS. As proposed, CARB staff's proposed targets would result in an additional reduction of over 8 MMTCO₂e in 2035 compared to the current targets (CARB 2018).

Transportation Sector Specific Regulations

Assembly Bill 1493 (Pavley Law)

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the USEPA. In 2012, the USEPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles. (See also the previous discussion of federal regulations under subheading "Update to Corporate Average Fuel Economy Standards [2017 to 2026].")

In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of ZEVs into a single package of standards. Under California's Advanced Clean Car program, by 2025 new automobiles will emit 34 percent less GHG emissions and 75 percent less smog-forming emissions.

Advanced Clean Fleets and Advanced Clean Trucks

CARB adopted the Advanced Clean Fleets (ACF) regulation in 2023 to accelerate the transition to zero-emission medium- and heavy-duty vehicles. In conjunction with the Advanced Clean Trucks regulation, the ACF regulations helps to ensure that medium- and heavy-duty ZEVs are brought to the market, by requiring certain fleets to purchase ZEVs. The ACF ZEV phase-in approach provides initial focus where the best fleet electrification opportunities exist, sets clear targets for regulated fleets to make a full conversion to ZEVs, and creates a catalyst to accelerate development of a heavy-duty public charging infrastructure network.

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Executive Order S-01-07

On January 18, 2007, the state set a new Low-Carbon Fuel Standard (LCFS) for transportation fuels sold in the state. EO S 01 07 set a declining standard for GHG emissions measured in CO₂e gram per unit of fuel energy sold in California. The LCFS required a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applied to refiners, blenders, producers, and importers of transportation fuels, and used market-based mechanisms to allow these providers to choose the most economically feasible methods for reducing emissions during the "fuel cycle."

Executive Order B-16-2012

On March 23, 2012, the state identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate ZEVs in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle (EV) charging stations). EO B 16-2012 also directed the number of ZEVs in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are zero emission by 2015 and at least 25 percent by 2020. The executive order also established a target for the transportation sector of reducing GHG emissions to 80 percent below 1990 levels.

Executive Order N-79-20

On September 23, 2020, EO N-79-20 was signed into law. The goal of this EO is for 100 percent of in-state sales of new passenger cars and trucks to be zero emission by 2035. Additionally, the fleet goals for trucks are for 100 percent of drayage trucks to be zero emission by 2035, and 100 percent of medium- and heavy-duty vehicles in the state to be zero emission by 2045, where feasible. The EO's goal for the state is to transition to 100 percent zero-emission off-road vehicles and equipment by 2035, where feasible.

In October 2023, CARB is proposing amendments to the Advanced Clean Cars II standards that will ensure all new passenger cars, trucks and SUVs sold in the state will be zero-emitting by 2035 (CARB 2024). The Advanced Clean Cars II standards will amend the Zero-Emission Vehicle Regulation to require an increase in zero-emission vehicles and amends the Low-Emission Vehicle Regulations to include more stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions.

Renewables Portfolio: Carbon Neutrality Regulations

Senate Bills 1078, 107, and X1-2 and Executive Order S-14-08

A major component of California's Renewable Energy Program is the renewables portfolio standard established under SB 1078 (Sher) and SB 107 (Simitian). Under the Renewable Portfolio Standards (RPS), certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. EO S-14-08, signed in November 2008, expanded the state's renewable energy standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for

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electricity production decreases indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350

SB 350 (de Leon) was signed into law in September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Senate Bill 100

On September 10, 2018, SB 100 was signed into law to replace the Clean Energy and Pollution Reduction Act (SB 350) requirements. Under SB 100, the RPS for public-owned facilities and retail sellers consists of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill establishes an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 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.

Senate Bill 1020

SB 1020 was signed into law on September 16, 2022. SB 1020 provides interim RPS targets (90 percent renewable energy by 2035 and 95 percent renewable energy by 2040) and requires renewable energy and zero-carbon resources to reach 100 percent clean electricity by 2045.

Energy Efficiency Regulations

California Building Code: Building Energy Efficiency Standards

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 [CEC]) in June 1977 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for the consideration and possible incorporation of new energy efficiency technologies and methods.

The 2022 Building Energy Efficiency Standards were adopted on August 11, 2021, and went into effect on January 1, 2023. The 2022 standards encourage efficient electric heat pumps, establish electric-ready requirements for new homes, expand solar photovoltaic and battery storage standards, strengthen ventilation standards, and more. The 2022 standards require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances. In addition, the standards also include prescriptive photovoltaic system and battery requirements for high-rise, multifamily buildings (i.e., more than three stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers (CEC 2022).

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The CEC is currently developing the final code language for the 2025 Building Energy Efficiency Standards, which are anticipated to be adopted in late 2024. The 2025 Building Energy Efficiency Standards will replace the 2022 Building Energy Efficiency Standards and will become effective on January 1, 2026.

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established 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 mandatory provisions of CALGreen became effective January 1, 2011, and were last updated in 2022. The 2022 CALGreen standards became effective on January 1, 2023.

Overall, the code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction. CALGreen contains requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR Sections 1601–1608) were adopted by the CEC on October 11, 2006, and 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. Though 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.

Solid Waste Diversion Regulations

Assembly Bill 939: Integrated Waste Management Act of 1989

California's Integrated Waste Management Act of 1989 (AB 939, Public Resources Code Section 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the Act requires that each city and county prepare and submit a source reduction and recycling element. This Act also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

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Assembly Bill 341

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses. Section 5.408 of CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

Assembly Bill 1327

The California Solid Waste Reuse and Recycling Access Act (AB 1327, Public Resources Code Section 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

Assembly Bill 1826

In October of 2014, AB 1826 was signed into law requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings with five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed with food waste.

Water Efficiency Regulations

Senate Bill X7-7

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to SB 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed “SBX7-7.” SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirement (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 required urban water providers to adopt a water conservation target of a 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

Assembly Bill 1881

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or an equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves, to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

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Short-Lived Climate Pollutant Reduction Strategy

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and methane. Black carbon is the light-absorbing component of fine particulate matter produced during the incomplete combustion of fuels. SB 1383 required the state board, no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also established targets for reducing organic waste in landfills. On March 14, 2017, CARB adopted the Short-Lived Climate Pollutant Reduction Strategy, which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use. In-use on-road rules were expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020.

Regional Plans and Regulations

2022 Regional Transportation Plan & Sustainable Communities Strategy

SB 375 requires each MPO to prepare a SCS in its regional transportation plan (RTP). On August 25, 2022, the San Joaquin Council of Governments (SJCOG) Board of Directors approved the final 2022 Regional Transportation Plan and Sustainable Communities Strategy RTP/SCS (SJCOG 2022). The 2014 and 2018 plans met the previous targets per capita GHG emissions reductions from 2005 of 5 percent in 2020 and 10 percent in 2035. The 2022 RTP/SCS continues to meet the increased reduction targets set by CARB and imposed under SB 375. The reductions are from cars and light duty trucks and are measured against a 2005 baseline on a per capita basis. This plan further shows that these targets can be achieved with more compact development with a focus on infill development and access to an effective transportation systems.

Local Regulations

Lodi Municipal Code

Chapter 15.04 – Building Code

The City adopted the 2022 California Building Code. The Building Code of the City of Lodi shall apply to all matters pertaining to the erection, construction, enlargement, alteration, repair, moving, removal, conversion, demolition, occupancy, equipment, use, height, area, and maintenance of buildings or structures in the City; the issuance of building permits and the collection fees.

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Chapter 15.18 – Green Building Code

The City adopted the 2022 California Green Building Standard Code (Green Building Code) and a copy of the Green Building Code is maintained by the city building official. 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.

Chapter 15.19 – Expedited Permit Process for Small Residential Rooftop Solar Systems

This chapter describes the adopted, streamlined solar permitting process that complies with the Solar Rights Act and AB 2188 (Chapter 521, Statutes 2014) to achieve timely and cost-effective installations of small residential rooftop solar energy systems. This chapter encourages the use of solar systems by removing unreasonable barriers, minimizing costs to property owners and the City of Lodi, and expanding the ability of property owners to install solar energy systems.

City of Lodi Climate Action Plan

The City's Climate Action Plan (CAP) was adopted on November 20, 2014 as part of the General Plan process to serve as a guide for a communitywide effort to increase energy and resource efficiency, while following the State of California's guidance regarding the reduction of GHG emissions. This CAP provides a strategic framework for the development of measures, policies and programs across all sectors that aim to reduce GHG emissions resulting from communitywide and municipal government operations within city limits. The five main reduction strategies are building energy efficiency, transportation, water and wastewater, solid waste, and green infrastructure.

The majority of reductions come from energy efficiency improvements (43 percent), transportation strategies (37 percent), and management strategies (20 percent). The CAP's energy efficiency measures are primarily focused on the efficient use of electricity (retrofits of existing residential and commercial buildings, building system efficiency upgrades, streetlight upgrades, building shade tree planting, and increasing renewable energy use), which would also result in natural gas savings.

These measures for community-wide reductions were projected to reach the efficiency based emissions target of 4.5 MT CO₂e/service population/year by 2020 and 3.0 MT CO₂e/service population/year by 2030. This CAP does not address the steps needed to achieve reduction goals beyond 2030 since the existing General Plan planning horizon extends only to 2030. The CAP also offers implementation and performance evaluation strategies to monitor whether the implementation of a measure is on track to achieve the GHG reduction goals (Lodi 2014).

4.3.1.4 EXISTING CONDITIONS

California's GHG Sources and Relative Contribution

In 2023, the statewide GHG emissions inventory was updated for 2000 to 2021 emissions using the GWPs in IPCC's AR4 and reported that California produced 381.3 MMTCO₂e GHG emissions in 2021 (49.7 MMTCO₂e below the 2020 GHG Limit of 431 MMTCO₂e) (IPCC 2013). The growth in statewide emissions

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from 2020 to 2021 was likely due in large part to the increase of transportation and other economic activity that occurred in 2021 relative to 2020 as the California emerged from the COVID-19 pandemic.

California's transportation sector was the single-largest generator of GHG emissions, producing 38.2 percent of the state's total emissions. Industrial sector emissions made up 19.4 percent, and electric power generation made up 16.4 percent of the state's emissions inventory. Other major sectors of GHG emissions include residential and commercial (10.2 percent), agriculture and forestry (8.1 percent), high GWP (5.6 percent), and recycling and waste (2.2 percent) (CARB 2023).

Since the peak level in 2004, California's GHG emissions have generally followed a decreasing trend. In 2014, statewide GHG emissions dropped below the 2020 GHG Limit (AB 32 target for year 2020) and have remained below the Limit since that time. Additionally, per capita GHG emissions have dropped from a 2001 peak of 13.8 MTCO₂e per person to 9.7 MTCO₂e per person in 2021, a 30 percent decrease.

Transportation emissions increased from 2020, likely from passenger vehicles whose emissions rebounded after COVID-19 shelter-in-place orders were lifted. Electricity emissions also increased compared to 2020; however, there has been continued growth of in-state solar generation and imported renewable electricity. High-GWP emissions have continued to increase as high-GWP gases replace ozone-depleting substances being phased out under the 1987 Montreal Protocol. Overall trends in the inventory also continue to demonstrate that the carbon intensity of California's economy (i.e., the amount of carbon pollution per million dollars of gross domestic product) is declining. From 2000 to 2021, the carbon intensity of California's economy decreased by 50.8 percent while the gross domestic product increased by 67.9 percent.

Community-Wide GHG Emissions

The existing land uses in Lodi consist of single- and multi-family residences and retail, office, commercial, industrial, and institutional uses. Operation of these land uses generates GHG emissions from natural gas used for energy, heating, and cooking; electricity usage; vehicle trips for employees and residents; area sources such as landscaping and agricultural equipment and consumer cleaning products; water demand; waste generation; and solid waste generation.⁴ Emissions associated with the General Plan Area are shown in Table 4.3-4, *Existing GHG Emissions Inventory in the General Plan Area*.

⁴ Emissions from water demand and wastewater are emissions associated with electricity used to supply, treat, and distribute water.

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TABLE 4.3-4 EXISTING GHG EMISSIONS INVENTORY IN THE GENERAL PLAN AREA

Emissions Sector	Existing 2020 GHG Emissions (MTCO ₂ e/year)	
	General Plan Area (City + SOI)	Percentage of Total
Building Electricity	93,451	28%
Building Natural Gas	90,714	27%
On-Road Transportation	52,776	16%
Off-road Vehicles and Equipment	37,372	11%
Solid Waste/Landfills	21,921	7%
Refrigerants	32,079	10%
Water Use	1,079	<1%
Wastewater Treatment	1,522	<1%
Total Community Emissions	330,915	100%
Service Population (SP)	91,730	NA
Per-Capita Emissions	3.6	NA

Source: Appendix B.

Notes: Emissions may not total to 100 percent due to rounding. N/A = Not applicable.

As shown in Table 4.3-4, the building natural gas and electricity (55 percent) and transportation sector (16 percent) are the largest sources of community-wide GHG emissions in the General Plan Area for year 2020. The five remaining sectors listed in decreasing share of community-wide emissions are off-road vehicles and equipment (11 percent), refrigerants (10 percent), solid waste/landfills (7 percent), wastewater treatment (<1 percent), and water use (<1 percent).

4.3.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in significant GHG emission impacts if it would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
2. Conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.
3. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to GHG emissions.

4.3.2.1 CONSISTENCY WITH AB 1279

The proposed project forecasts growth in the city through year 2045; therefore, this SEIR analyzes the potential for the proposed project to conflict with statewide GHG reduction goals identified in the CARB Scoping Plan that are applicable to local governments. This includes AB 1279, which requires an 85 percent

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reduction in GHG emissions by 2045 to stabilize CO₂e emissions and avoid the most catastrophic impacts of climate change as well as substantial progress toward carbon neutrality.⁵

Based on the General Plan Area's existing inventory in Table 4.3-4, a trajectory consistency with the State's GHG emissions targets would be:

- 49,637 MTCO₂e by Year 2045

4.3.2.2 MASS EMISSIONS AND HEALTH EFFECTS

On December 24, 2018, in the case *Sierra Club et al. v. County of Fresno et al.* (Friant Ranch), the California Supreme Court determined that the EIR for the proposed Friant Ranch project failed to adequately analyze the project's air quality impacts on human health. The EIR prepared for the project, which involved a master planned retirement community in Fresno County, showed that project-related mass emissions would exceed the SJVAPCD's regional significance thresholds. In its findings, the California Supreme Court affirmed the holding of the Court of Appeal that EIRs for projects must not only identify impacts to human health, but also provide an "analysis of the correlation between the project's emissions and human health impacts" related to each criteria air pollutant that exceeds the regional significance thresholds or explain why it could not make such a connection. In general, the ruling focuses on the correlation of emissions of toxic air contaminants and criteria air pollutants and their impact to human health.

In 2009, the USEPA issued an endangerment finding for six GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) to regulate GHG emissions from passenger vehicles. The endangerment finding is based on evidence that shows an increase in mortality and morbidity associated with increases in average temperatures, which increase the likelihood of heat waves and ozone levels. The effects of climate change are identified in Table 4.3-2. While these identified effects, such as sea-level rise and increases in extreme weather, can indirectly impact human health, neither the USEPA nor CARB has established ambient air quality standards for GHG emissions. The state's GHG-reduction strategy outlines a path to avoid the most catastrophic effects of climate change. Yet the state's GHG-reduction goals and strategies are based on the state's path toward reducing statewide cumulative GHGs, as outlined in AB 32, SB 32, and AB 1279.

The two significance thresholds that the City uses to analyze GHG impacts are based on achieving the statewide GHG-reduction goals (Impact Discussion GHG-1) and relying on consistency with policies or plans adopted to reduce GHG emissions (Impact Discussion GHG-2). Further, because no single project is large enough to result in a measurable increase in global concentration of GHG emissions, climate change impacts of a project are considered on a cumulative basis. Without federal AAQS for GHG emissions and given the

⁵ The 2022 Scoping Plan update includes statewide measures to achieve the state's carbon neutrality goals under Executive Order B-55-18 such as carbon dioxide removal (CDR) that are not applicable to local governments. Carbon neutrality goals are a "no impact" level and not a "less than significant" impact level for climate change effects. There are presently no reliable means of forecasting how future technological developments related to carbon dioxide removal may affect future emissions in a planning jurisdiction. Therefore, carbon neutrality targets are not directly applicable to local governments and CEQA projects to mitigate GHG emissions impacts of a proposed project. Moreover, AB 1279 GHG reduction targets for 2045 are in line with the scientifically established levels needed in the U.S. to limit global warming below 1.5 to 2.0 degrees Celsius, the warming threshold at which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels. For these reason, the targets of AB 1279 are applicable to the EIR. However, the CAP includes measures that align with the state's carbon neutrality goals under Executive Order B-55-18 and per-capita targets under SB 32.

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cumulative nature of GHG emissions and the City's significance thresholds that are tied to reducing the state's cumulative GHG emissions, it is not feasible at this time to connect the project's specific GHG emissions to the potential health impacts of climate change.

4.3.3 PROPOSED GENERAL PLAN POLICIES

The following goals and policies relevant to GHG emissions from the existing Lodi General Plan would be modified under the proposed project and would help reduce potential GHG impacts.

Conservation Element

- **Policy C-P59:** 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.
- **Policy C-P60:** Reduce energy consumption within City government facilities and motor fleets.
- **Policy C-P61:** Encourage the use of passive and active solar devices such as solar collectors, solar cells, and solar heating systems into the design of local buildings. Promote voluntary participation in incentive programs to increase the use of solar photovoltaic systems in new and existing residential, commercial, institutional, and public buildings. Study the fiscal feasibility of an incentive program for property owners who install photovoltaic or comparable solar energy generating devices.
- **Policy C-P62:** Work with the California Energy Commission and other public and non-profit agencies to promote the use of programs that encourage developers to surpass Title 24 Energy Efficiency standards by utilizing renewable energy systems and more efficient practices that conserve energy, including, but not limited to natural gas, hydrogen or electrical vehicles. Offer incentives such as density bonus, expedited process, fee reduction/waiver to property owners and developers who exceed California Title 24 energy efficiency standards.
- **Policy C-P63:** Develop, adopt, and implement a heat island mitigation plan to reduce carbon dioxide emissions, smog, and the energy required to cool buildings. This plan should contain requirements and incentives for the use of cool roofs, cool pavements, and strategic shade tree placement, all of which may result in as much as 6-8° F temperature decrease from existing conditions.
- **Policy C-P64:** Encourage the planting of shade trees along all City streets and residential lots (but, particularly in areas that currently lack street trees) to reduce radiation heating and greenhouse gases. Develop a tree planting informational packet to help future residents understand their options for planting trees.

Land Use Element

- **Goal LU-G2:** Encourage development of downtown as a mixed-use activity center with a range of commercial, residential, and civic uses.

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- **Goal LU-G3:** Promote revitalization of key commercial spines of the community with focused, mixed-use development.
- **Goal LU-G4:** Foster development of walkable new neighborhoods, with a mix of uses and diversity of housing types.
- **Policy LU-P2:** Require sites designated for mixed-use development—downtown, corridors, and in new neighborhood centers—to be developed with a variety of residential and non-residential uses, in accordance with the General Plan designation.
- **Policy LU-P16:** Prepare a Downtown Specific Plan that will guide land uses and development within the Downtown to create a vibrant, entertaining, and walkable interconnected core. Address pedestrian amenities and outdoor gathering spaces, enhanced streetscape and provide for a mix of commercial and residential uses.
- **Policy LU-P24:** Guide new residential development into compact neighborhoods with a defined Mixed-Use Center, including public open space, a school or other community facilities, and neighborhood commercial development.

Community Design and Livability Element

- **Policy CD-P1:** Incentivize infill housing—within the Downtown Mixed Use district and along Mixed Use Corridors—through the development review, permitting and fee processes.
- **Goal CD-G4:** Structure new neighborhoods to promote walkability, and ensure they are integrated with the surrounding urban fabric.
- **Goal CD-G5:** Foster a well connected street network that enhances accessibility to jobs, services, parks, schools, and shopping, particularly at the scale of pedestrians and bicyclists.
- **Goal CD-G9:** Encourage green building and construction in new development and renovations.
- **Policy CD-P31:** Integrate new Mixed Use Centers into the city’s existing fabric and proposed new development. Provide a network of streets and connections that expands circulation opportunities for pedestrians and bicyclists and ensures connections by multiple modes between the new centers, and existing neighborhoods.

Update Subdivision ordinance to require:

- Master plans for new development that show publicly accessible parks, and a connected street grid.
- Blocks that do not exceed 600 feet in length unless additional pedestrian connections or public space is included.
- Street trees on public streets.
- Sidewalks on public streets.
- **Policy 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

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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 to reduce annual per job.

These guidelines could be developed directly from the LEED (Leadership in Energy and Environmental Design) system developed by the U.S. Green Building Council, the California-based Build It Green GreenPoint rating system, or an equivalent green building program.

Transportation Element

- **Goal T-G2:** Maintain and update street standards that provide for the design, construction, operation, and maintenance of City streets based on a “complete streets” concept that enables safe, comfortable, and attractive access for pedestrians, bicyclists, motorists, and transit users of all ages and abilities, in a form that is compatible with and complementary to adjacent land uses.
- **Goal T-G4:** Provide for safe and convenient pedestrian, bicycle, and transit circulation.
- **Goal T-G8:** Encourage reduction in vehicle miles traveled as part of a strategy to reduce greenhouse gas emissions.
- **Policy T-P18:** Foster walkable streets through streetscape improvements, continuous sidewalks on both sides of streets, and encouraging pedestrian access wherever feasible. Update the Subdivision Ordinance to include requirements for sidewalks, street trees, and lighting. Where sidewalks do not exist within existing developments, and are desired, explore a program to provide sidewalks by reducing the curb-to-curb road width, in cases where safety and traffic flow are not compromised.
- **Policy T-P19:** To maintain walkability and pedestrian safety, consider encourage roadway width and roadway design features such as islands, pedestrian refuges, pedestrian countdown signals, and other such mechanisms. This policy applies to new roadway construction as well as existing roadways where pedestrian safety issues may occur due to roadway design or width.

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- **Policy T-P20:** In new development areas, include pedestrian connections to public transit systems, commercial centers, schools, employment centers, community centers, parks, senior centers and residences, and high-density residential areas.
- **Policy T-P21:** Work cooperatively with the Lodi Unified School District on a “safe routes to schools” program that aims to provide a network of safe, convenient, and comfortable pedestrian routes from residential areas to schools. Improvements may include expanded sidewalks, shade trees, bus stops, and connections to the extended street, bike, and transit network.
- **Policy T-P22:** Use the City’s Bike Master Plan as comprehensive method for implementing bicycle circulation, safety, and facilities development. Update the Plan to match bike route connections in new General Plan development areas.
- **Policy T-P23:** Coordinate the connection of local bikeways and trails to regional bikeways identified in the San Joaquin County Bicycle Transportation Plan.
- **Policy T-P24:** Require the placement of bicycle racks or lockers at park-and-ride facilities.
- **Policy T-P28:** Continue to support the efficient operation of the Lodi Station, and to explore opportunities to expand the multi-modal transportation services provided there.
- **Policy T-P30:** Encourage ridership on public transit systems through marketing and promotional efforts. Provide information to residents and employees on transit services available for both local and regional trips.
- **Policy T-P32:** Coordinate transit services and transfers between the various transit operators serving Lodi.
- **Policy T-P33:** Require new development to provide transit improvements where appropriate and feasible, including direct pedestrian access to transit stops, bus turnouts and shelters, and local streets with adequate width to accommodate buses.
- **Policy T-P34:** Continue to actively support and manage the Lodi Grapeline bus service.
- **Policy T-P48:** Promote ridesharing and cooperate with regional travel demand management programs to reduce peak-hour traffic congestion and help reduce regional vehicle miles traveled.
- **Policy T-P49:** Promote employment opportunities within Lodi to reduce commuting to areas outside of Lodi.
- **Policy T-P50:** Continue to implement the *SB 743 Implementation Guidelines for City of Lodi January 2025* that reduces the total vehicle miles of traveled (VMT) by making efficient use of existing transportation facilities and by providing for more direct routes for pedestrians and bicyclists through the implementation of “smart growth” and sustainable planning principles.
- **Policy T-P51:** Periodically update the *City’s SB 743 Implementation Guidelines* to remain consistent with State standards, guidelines and regulations related to reduction of VMT.
- **Policy T-P52:** Within its *SB 743 Implementation Guidelines*, the City shall identify those types of projects for which VMT impacts are considered less-than-significant and shall also identify those types of projects that are likely to exceed the City’s VMT thresholds. Consistent with Policy T-P51, the *City’s SB*

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743 Guidelines shall be periodically reviewed and updated as needed to maintain consistency with State VMT reduction guidance and regulations.

- **Policy T-P53:** Development projects shall be reviewed for consistency with the City's then-current *SB 743 Implementation Guidelines*, as adopted at the time of development project review, or for consistency with any other VMT reduction criteria as may be adopted by the City and in effect at the time of project review.
- **Policy T-P54:** The City shall evaluate transportation improvement projects for consistency with the City's *SB 743 Implementation Guidelines* or other VMT reduction criteria as may be adopted by the City and in effect at the time of the transportation improvement project review.
- **Policy T-P55:** For projects determined to exceed the City's VMT thresholds pursuant to the City's then-current *SB 743 Implementation Guidelines* or any other VMT reduction criteria as may be adopted by the City and in effect during project review, the City shall require feasible mitigation measures to reduce VMT impacts from any and all VMT threshold exceedance(s) identified.

Growth Management and Infrastructure Element

- **Policy GM-P12:** Require water conservation in both City operations and private development to minimize the need for the development of new water sources and facilities. To the extent practicable, promote water conservation and reduced water demand by:
 - Requiring the installation of non-potable water infrastructure for irrigation of landscaped areas over one acre of new landscape acreage, where feasible. Conditions of approval shall require connection and use of non-potable water supplies when available at the site.
 - Encouraging water-conserving landscaping, including the use of drought tolerant and native plants, xeriscaping, use of evapotranspiration water systems, and other conservation measures.
 - Encouraging retrofitting of existing development with water-efficient plumbing fixtures, such as ultra low-flow toilets, waterless urinals, low-flow sinks and showerheads, and water-efficient dishwashers and washing machines.
- **Policy GM-P13:** Support on-site gray water and rainwater harvesting systems for households and businesses.
- The City should develop a strategy for the legal, effective, and safe implementation of gray water and rainwater harvesting systems, including amendment of the Building Code as appropriate to permit gray water and provision of technical assistance and educational programming to help residents implement gray water and rainwater harvesting strategies.
- **Policy GM-P20:** Continue to improve waste diversion rates through recycling and resource conservation measures. Support waste reduction and recycling programs through public education.

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4.3.4 ENVIRONMENTAL IMPACTS

4.3.4.1 METHODOLOGY

This GHG evaluation was prepared in accordance with the requirements of CEQA to determine if significant GHG impacts are likely to occur in conjunction with future development that would be accommodated by the proposed project.

The community-wide GHG inventory and forecast includes the following sectors:

- **Building Energy.** Emissions associated with electricity and natural gas use for residential and nonresidential land uses in the General Plan Area were modeled based on electricity and natural gas data provided by PG&E (years 2018 through 2022) and electricity data provided by LEU (years 2019 through 2023). Due to the 15/15 Rule, electricity use data for industrial land uses was aggregated with the nonresidential land uses in the data provided by PG&E and LEU.⁶ Forecasts are adjusted for increases in population for residential electricity and natural gas use and non-residential square footage for non-residential electricity and natural gas use in the General Plan Area. A weighted average of carbon intensity factors was used for year 2020 and 2045 are based on the 2022 CalEEMod User's Guide, Appendix G, and total electricity usage between PG&E and LEU (CAPCOA 2022).
- **Transportation.** Transportation emissions forecasts were modeled using emissions data from CARB's EMFAC2021 V1.0.2 web database. Model runs were based on internal and external origin-destination (O-D) VMT data provided by Fehr & Peers for calendar year 2020 (existing) and 2045 emission rates. The VMT is based on O-D using the San Joaquin Council of Governments Regional Travel Demand Model and includes the full trip length for land uses in the General Plan Area and a 50 percent reduction in the trip length for external-internal/internal-external trips based on the recommendations of CARB's Regional Targets Advisory Committee under SB 375.⁷ Consistent with CARB's methodology within the Climate Change Scoping Plan Measure Documentation Supplement, daily VMT was multiplied by 347 days per year to account for reduced traffic on weekends and holidays to determine annual emissions.
- **Off-Road Equipment.** OFFROAD is a database of equipment use and associated emissions for each county compiled by CARB. Off-road equipment in the General Plan Area is based on year 2020 emission rates for San Joaquin County obtained from CARB's OFFROAD V1.0.7 web database. OFFROAD was used to estimate GHG emissions from lawn and garden, light commercial/industrial equipment, construction equipment, and agriculture in the General Plan Area. General Plan Area emissions from lawn and garden

⁶ The 15/15 Rule was adopted by the California Public Utilities Commission in the Direct Access Proceeding (CPUC Decision 97-10-031) to protect customer confidentiality. The 15/15 rule requires that any aggregated information provided by a utility must be made up of at least 15 customers, and a single customer's load must be less than 15 percent of an assigned category. If the number of customers in the compiled data is below 15, or if a single customer's load is more than 15 percent of the total data, categories must be combined before the information is released. The Rule further requires that if the 15/15 Rule is triggered for a second time after the data have been screened once already using the 15/15 Rule, the customer be dropped from the information provided.

⁷ For accounting purposes, there are three types of trips:

Internal-Internal: Vehicle miles traveled associated with vehicle trips that originated and terminated within the City.

Internal-External or External-Internal: vehicle trips that either originated or terminated (but not both) within the City.

External-External: Vehicle miles traveled associated with vehicle trips that neither originated or terminated within the City.

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equipment is based on the percentage of housing units in City and SOI compared to San Joaquin County and forecasted for each based on growth of housing units. General Plan Area emissions attributable to light commercial/industrial equipment is estimated based on employment for City and SOI as a percentage of San Joaquin County and forecasted for each based on growth of employment. Construction equipment use is estimated based on housing permit data for City and SOI compared to San Joaquin County and assumes that construction emissions for the forecast year for each would be similar to historical levels. Agricultural equipment is based on the percentage of farmland in the City and SOI compared to the San Joaquin County and forecasted for each based on the change in farmland acreage.

- **Refrigerant Leakage.** Refrigerants are based on the statewide 2020 refrigerant use and statewide population based on the 2020 census data to derive emissions per person. Emissions from this sector are based on AR4 since the inventory is not available with AR5 GWPs.
- **Solid Waste Disposal.** GHG emissions from solid waste disposed of by residents and employees in the General Plan Area were quantified based on the waste-in-place method. This method assumes that the degradable organic component in waste decays slowly throughout a few decades, during which CH₄ and biogenic CO₂ are formed. If conditions are constant, the rate of CH₄ production depends solely on the amount of carbon remaining in the waste. As a result, emissions of CH₄ from waste deposited in a disposal site are highest in the first few years, then gradually decline. Significant CH₄ production typically begins one or two years after waste disposal in a landfill and continues for 10 to 60 years or longer. Waste disposal was averaged over several years to account for fluctuations in average annual solid waste disposal. Waste generated was based on data obtained from the California Department of Resources Recycling and Recovery (CalRecycle), to provide an estimate of GHG emissions for existing conditions (2020) for the City. Waste generated within SOI was estimated based on service population.

GHG emissions from solid waste disposal in the baseline year were modeled using CARB's Landfill Emissions Tool Version 1.9, which includes waste characterization data from CalRecycle. Because the landfill gas captured is not under the jurisdiction of Lodi, the landfill gas emissions from the capture system are not included in the inventory. Only fugitive sources of GHG emissions from landfills are included. Modeling assumes a 75 percent reduction in fugitive GHG emissions from the landfill's Landfill Gas Capture System. The Landfill gas capture efficiency is based on CARB's LGOP, Version 1.1. Total GHG emissions from waste disposal in 2020 were forecasted based on the percent increase in service population for the City. Furthermore, CO₂e emissions results from CARB's Landfill Emissions Tool are converted to be based on the Fifth Assessment Report CH₄ GWP from the default Second Assessment Report CH₄ GWP used by the Landfill Emissions Tool. The emissions forecast does not account for reductions from increasing waste diversion.

- **Water Use and Wastewater Treatment.** GHG emissions from this sector include indirect GHG emissions from the embodied energy associated with water use and wastewater generation and fugitive GHG emissions from processing wastewater. The total annual existing, approved project, and proposed project water demand and wastewater generation in the General Plan Area are based on the City's 2012 Water Master Plan and State Water Resources Control Board monthly reports on potable water production (see Appendix D). Electricity use from water use is estimated using energy rates identified by in the 2022 CalEEMod Users Guide (CAPCOA 2022). Then energy is multiplied by the carbon intensity of energy. Wastewater treatment also results in direct CH₄ emissions from wastewater processing, which are based on the emission rates identified in the 2022 CalEEMod Users Guide (CAPCOA 2022).

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Industrial sources of emissions that require a permit from SJVAPCD are not included in the community inventory. However, due to the 15/15 Rule, natural gas and electricity use data for industrial land uses may also be aggregated with the nonresidential land uses in the data provided by PG&E and LEU. Lifecycle emissions are not included in this analysis because not enough information is available for the proposed project; therefore, they would be speculative. Black carbon emissions are not included in the GHG analysis because CARB does not include this pollutant in the state's GHG emissions inventory and treats this short-lived climate pollutant separately.

GHG-1	The proposed project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
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The 2009 EIR identified a significant increase in GHG emissions impacts associated with the approved project compared to existing conditions as a result of the magnitude of population and employment growth. There was no feasible mitigation measures currently available; therefore, buildout of the approved project would also result in a significant cumulative GHG impact.

Similar to the approved project, development under the proposed project would contribute to global climate change through direct and indirect emissions of GHG from land uses within the General Plan Area. A general plan does not directly result in development without additional approvals. Before any development can occur in the General Plan Area, it must be analyzed for consistency with the City of Lodi General Plan Update, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

Horizon Year 2045 Emissions Forecast

The proposed project is an update to the City's existing General Plan to guide the City's development and conservation through 2045. As further described in Section 3.4.1, *Overview of the Proposed Project*, the proposed project is a focused update of the existing General Plan Land Use Element, with particular emphasis on reconciling discrepancies between General Plan Land Use Map and sites that have been developed, designation of additional sites for housing to meet the City's Housing Element obligations, and accurately depict the City's SOI boundary.

The community GHG emissions inventory for the proposed project compared to approved project is shown in Table 4.3-5, *GHG Emissions Forecast*. As shown in Table 4.3-5, the decrease in residential units and population associated with the proposed project compared to the approved project results in a decrease in all of the GHG emissions sectors. The GHG emissions efficiency of the proposed project, expressed in GHG emissions per service population, remained the same compared to the approved project. Overall, GHG emissions associated with the proposed project would be slightly reduced compared to those of the approved project, but would not meet the 2045 GHG target of 49,637 MTCO₂e under AB 1279. Therefore, similar to the approved project, GHG emissions impacts for the proposed project are considered potentially significant in regard to meeting the long-term year 2045 reduction goal.

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TABLE 4.3-5 GHG EMISSIONS FORECAST

Emissions Sector	GHG Emissions (MTCO ₂ e/Year)					
	Approved Project		Proposed Project		Net Change	
	General Plan Area	%	General Plan Area	%	General Plan Area	%
Building Electricity	112,804	30%	111,170	30%	-1,634	-1%
Building Natural Gas	110,874	29%	109,380	29%	-1,494	-1%
On-Road Transportation	46,011	12%	43,791	12%	-2,220	-5%
Off-Road Vehicles and Equipment	36,818	10%	36,744	10%	-74	0%
Solid Waste/Landfills	27,166	7%	26,838	7%	-328	-1%
Refrigerants	40,210	11%	39,748	11%	-462	-1%
Water Use	1,344	<1%	1,328	<1%	-16	-1%
Wastewater Treatment	1,897	1%	1,875	1%	-23	-1%
Total Community Emissions	377,124	100%	370,873	100%	-6,251	-2%
Service Population (SP)	113,677	—	112,306	—	-1,371	-1%
MTCO ₂ e/SP	3.3	—	3.3	—	0.0	0%
Trajectory to AB 1279 for Year 2045						
Magnitude Threshold	49,637	-85%	Does Not Achieve Target		—	—

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While growth within the General Plan Area would cumulatively contribute to GHG emissions impacts, the existing Lodi General Plan's Conservation (C), Community Design and Livability (CD), and Transportation (T) Element includes goals and policies to reduce GHG emissions associated with development projects allowed under the proposed project. Goal CD-G9, Policies C-P59, C-P61, C-P62, C-P63, and CD-P40 would contribute to reducing emissions from energy consumption by increasing energy efficiency and renewable energy improvements in households, businesses, and City-owned facilities. Various other goals and policies help contribute to reducing GHG emissions from mobile sources by promoting pedestrian and bicycle accessibility (Goal CD-G4, CD-G5, T-G2, T-G4, Policies CD-P31, T-P19, T-P21), improving accessible to public transportation (Policies T-P20, T-P28, T-P30, T-P32, T-P33, T-P34, T-P50, T-P51, T-P52, T-P53, T-P54, and T-P55), and supporting TDM measures where feasible (Goal T-G8, Policy T-P48).

Consistency with the State's 2045 GHG Reduction Targets and Carbon Neutrality Goals

To determine whether the proposed project would result in a potentially significant impact, the proposed project must demonstrate consistency with the State's 2045 GHG reduction target of carbon neutrality. Under the proposed project's land use plan, new growth would be focused on areas of the City where services exist or can be expanded and/or extended to serve additional and more intensive development. As identified in Table 4.3-5, the proposed project would result in a decrease of 2 percent in GHG emissions compared to the approved project and would still not achieve the 85 percent reduction in GHG emissions by 2045. Additionally, state strategies to achieve post-2030 targets would be necessary to align with the State's long-term GHG reduction targets. Therefore, until such GHG strategies have been adopted, GHG emissions impacts for the proposed project are considered potentially significant regarding meeting the long-term year 2045 reduction goal.

Significance Without Mitigation: Impact GHG-1 would be potentially significant.

Mitigation Measure GHG-1: The City of Lodi shall prepare a Climate Action Plan (CAP) update to achieve the GHG reduction targets of Senate Bill (SB) 32 for year 2030 and chart trajectory to achieve the long-term GHG reduction goal set by Assembly Bill (AB) 1279. The CAP update shall be completed within 18 months of certification of the General Plan Update EIR and be prepared in accordance with CEQA Guidelines Section 15183.5. The CAP update shall be updated every five years to ensure the City is monitoring the plan's progress toward achieving the City's GHG reduction target and to require amendment if the plan is not achieving specified level. The update shall consider a trajectory consistent with the GHG emissions reduction goal established under SB 32 for year 2030, AB 1279 for year 2045, and the latest applicable statewide legislative GHG emission reduction that may be in effect at the time of the CAP update. The CAP update shall include the following:

- GHG inventories of existing and forecast year GHG levels.
- Tools and strategies for reducing GHG emissions to achieve the GHG reduction goals of SB 32 for year 2030.
- Tools and strategies for reducing GHG emissions to ensure a trajectory with the long-term GHG reduction goal and carbon neutrality for year 2045 of AB 1279.

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- Plan implementation guidance that includes, at minimum, the following components consistent with the CAP update:
 - Administration and Staffing
 - Finance and Budgeting
 - Timelines for Measure Implementation
 - Community Outreach and Education
 - Monitoring, Reporting, and Adaptive Management
 - Tracking Tools

Level of Significance Without Mitigation: Significant and unavoidable. Implementation of Mitigation Measure GHG-1 would ensure that the City prepares a Climate Action Plan to achieve the GHG reduction goals of SB 32 and chart a trajectory to achieve the long-term GHG reduction goal and State’s carbon neutrality goal set by AB 1279. However, given the growth in population and employment within the General Plan Area and the magnitude of emissions reductions needed to achieve the GHG reduction target, GHG emissions are considered significant and unavoidable.

GHG-2	The proposed project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.
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The 2009 EIR identified that the approved project was consistent with statewide strategies adopted for the purpose of reducing GHG emissions. Applicable plans adopted for the purpose of reducing GHG emissions for the proposed project include CARB’s 2022 Scoping Plan and SJCOG’s 2022 RTP/SCS in addition to the City’s CAP. A consistency analysis with these plans are presented below.

CARB Scoping Plan

Since certification of the 2009 EIR, CARB has adopted the 2022 Climate Change Scoping Plan. The latest 2022 Climate Change Scoping Plan outlines the State’s strategies to reduce GHG emissions in accordance with the targets established under AB 32, SB 32, and AB 1279 (CARB 2022). The CARB Scoping Plan is applicable to state agencies but is not directly applicable to cities/counties and individual projects (i.e., the Scoping Plan does not require local jurisdictions to adopt its policies, programs, or regulations to reduce GHG emissions). However, new regulations adopted by the state agencies from the Scoping Plan result in GHG emissions reductions at the local level. So local jurisdictions benefit from reductions in transportation emissions rates, increases in water efficiency in the building and landscape codes, and other statewide actions that affect a local jurisdiction’s emissions inventory from the top down. Statewide strategies to reduce GHG emissions include the LCFS and changes in the CAFE standards.

Project GHG emissions shown in Table 4.3-5 include reductions associated with statewide strategies that have been adopted since AB 32, SB 32, and AB 1279. Development projects accommodated under the proposed project are required to adhere to the programs and regulations identified by the Scoping Plan and implemented by state, regional, and local agencies to achieve the statewide GHG reduction goals of AB 32, SB 32, and AB 1279. Future development projects would be required to comply with these state GHG emissions-reduction measures because they are statewide strategies. For example, new buildings

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associated with land uses accommodated by implementing the proposed project would be required to meet the CALGreen and Building Energy Efficiency Standards in effect at the time when applying for building permits. Furthermore, as discussed under Impact Discussion GHG-1, the proposed project includes goals and policies that would help reduce GHG emissions and therefore help achieve GHG reduction goals.

Impacts associated with the approved project and proposed project are similar. Implementation of the proposed project would not obstruct implementation of the CARB 2022 Scoping Plan, and impacts would be less than significant. The proposed project would not result in new or a substantial increase in magnitude of impacts compared to that of the approved project.

SJCOG Regional Transportation Plan/Sustainable Communities Strategy

SB 375 requires each MPO to prepare an SCS in its RTP. As described under *Regional Plans and Regulations*, SJCOG adopted the final 2022 RTP/SCS on August 24, 2022 (SJCOG 2022). Under the 2022 RTP/SCS, the San Joaquin region would continue to meet the increased GHG targets set by CARB and imposed under SB 375. This plan further shows that these targets can be achieved with more compact development with a focus on infill development and access to an effective transportation systems.

As listed in Impact Discussion GHG-1 and Chapter 4.9, *Transportation*, the proposed project contains specific goals and policies that will help reduce VMT and therefore reduce GHG emissions from automobiles. Furthermore, implementation of the proposed project is projected to not result in an increase in GHG emissions on a per-capita basis compared to the approved project. Thus, the proposed project would be consistent with the overall goals of SJCOG's RTP/SCS in concentrating new development in locations where there is existing infrastructure and transit.

Furthermore, as discussed in Chapter 4.6, *Population and Housing*, implementation of the proposed project would not result in new or substantially more severe significant impacts in unplanned growth in terms of the jobs-housing ratio compared to the approved project. Thus, the proposed project would continue to provide for residents to both live and work in the General Plan Area instead of commuting to other areas, which would contribute to minimizing VMT and reducing VMT per service population. Therefore, the proposed project would not interfere with SJCOG's ability to implement the regional strategies in RTP/SCS, and no impact would occur. The proposed project would not result in new impacts or a substantial increase in the magnitude of impacts compared to the approved project.

City of Lodi Climate Action Plan

The City's CAP provides a strategic framework for the development of measures, policies and programs across all sectors that aim to reduce GHG emissions resulting from communitywide and municipal government operations within city limits. The five main reduction strategies are building energy efficiency, transportation, water and wastewater, solid waste, and green infrastructure. These measures for community-wide reductions were projected to reach the efficiency based emissions target of 4.5 MT CO₂e/service population/year by 2020 and 3.0 MT CO₂e/service population/year by 2030. However, the CAP does not address the steps needed to achieve reduction goals beyond 2030 since the existing General Plan planning horizon extends only to 2030.

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The proposed project would be consistent with the strategies in the City's CAP. Implementation of the proposed project would result in beneficial GHG emissions impacts by contributing to reducing VMT (Goal T-G8, Policy T-P30, T-P32, T-P48 through T-P55), increasing energy and water use efficiency (Policy C-P38, C-P40, C-P44, CD-P40, GM-P12, GM-P13), and increasing renewable energy improvements (Policy C-P41, C-P42, C-P43). Moreover, future development projects would be required to comply with state GHG emissions reduction goals of AB 32, SB 32, and AB 1279 because they are statewide strategies. Therefore, implementation of the proposed project would not obstruct implementation of the City's CAP to reduce community-wide GHG emissions, and impacts would be less than significant. The proposed project would not result in new impacts or a substantial increase in the magnitude of impacts compared to the approved project.

Level of Significance Without Mitigation: Impact GHG-2 would be less than significant.

4.3.5 CUMULATIVE IMPACTS

GHG-3	Implementation of the proposed project would, in combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to GHG emissions.
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There were no feasible mitigation measures currently available when the 2010 Lodi General Plan was adopted; therefore, the 2009 EIR concluded that buildout of the approved project would result in a significant cumulative GHG impact. Project-related GHG emissions are not confined to a particular air basin but are dispersed worldwide. Therefore, impacts identified under Impact GHG-1 and Impact GHG-2 are not project-specific impacts to global warming, but the proposed project's contribution to this cumulative impact.

As described above, various policies and goals included in the proposed project would help minimize GHG emissions generated by the residential and nonresidential land uses in the General Plan Area. However, implementation of the proposed project would result in a 2 percent reduction in GHG emissions compared to approved project and would not achieve the long-term year 2045 GHG reduction goal and State's carbon neutrality goal set by AB 1279 without implementation of additional local GHG reduction measures. Consequently, the project-related GHG emissions and the proposed project's cumulative contribution to global climate change impacts would be considered cumulatively considerable, and GHG emissions impacts would be potentially significant.

Level of Significance Without Mitigation: Impact GHG-3 would be potentially significant.

Mitigation Measure GHG-2: Implement Mitigation Measure GHG-1.

Significance with Mitigation: Significant and unavoidable. As described in impact discussion GHG-1, implementation of Mitigation Measure GHG-1 would ensure that the City prepares a CAP to achieve the GHG reduction goals of SB 32 and chart a trajectory to achieve the long-term GHG reduction goal and State's carbon neutrality goal set by AB 1279. However, given the growth in population and

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employment within the General Plan Area and the magnitude of emissions reductions needed to achieve the GHG reduction target, GHG emissions are considered significant and unavoidable.

4.3.6 MITIGATION MEASURES

Mitigation Measures from the 2009 EIR

The 2009 EIR identified a wide range of policies recommended by State agencies and from the CAP, which were included in the existing General Plan to substantially reduce GHG emissions. However, given the current uncertainty in quantifying the impacts of these measures, it was not possible to determine if the proposed policies would reduce emissions sufficiently. There was no other feasible mitigation measures identified in the 2009 EIR.

New Mitigation Measures

Mitigation Measure GHG-1: The City of Lodi shall prepare a Climate Action Plan (CAP) update to achieve the GHG reduction targets of Senate Bill (SB) 32 for year 2030 and chart trajectory to achieve the long-term GHG reduction goal set by Assembly Bill (AB) 1279. The CAP update shall be completed within 18 months of certification of the General Plan Update EIR and be prepared in accordance with CEQA Guidelines Section 15183.5. The CAP update shall be updated every five years to ensure the City is monitoring the plan's progress toward achieving the City's GHG reduction target and to require amendment if the plan is not achieving specified level. The update shall consider a trajectory consistent with the GHG emissions reduction goal established under SB 32 for year 2030, AB 1279 for year 2045, and the latest applicable statewide legislative GHG emission reduction that may be in effect at the time of the CAP update. The CAP update shall include the following:

- GHG inventories of existing and forecast year GHG levels.
- Tools and strategies for reducing GHG emissions to achieve the GHG reduction goals of SB 32 for year 2030.
- Tools and strategies for reducing GHG emissions to ensure a trajectory with the long-term GHG reduction goal and carbon neutrality for year 2045 of AB 1279.
- Plan implementation guidance that includes, at minimum, the following components consistent with the CAP update:
 - Administration and Staffing
 - Finance and Budgeting
 - Timelines for Measure Implementation
 - Community Outreach and Education
 - Monitoring, Reporting, and Adaptive Management
 - Tracking Tools

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LAND USE AND PLANNING

4.4 LAND USE AND PLANNING

This section evaluates the potential environmental effects related to land use and planning associated with implementation of the proposed project.

4.4.1 ENVIRONMENTAL SETTING

4.4.1.1 REGULATORY FRAMEWORK

Federal Regulations

National Historic Preservation Act

Most regulations at the federal level stem from the National Environmental Policy Act (NEPA) and from historic preservation legislation such as the National Historic Preservation Act (NHPA) of 1966. NHPA established guidelines to “preserve important historic, cultural, and natural aspects of our national heritage, and to maintain, wherever possible, an environment that supports diversity and a variety of individual choice.” The NHPA includes regulations specifically for federal land-holding agencies and regulations that pertain to all projects that are funded, permitted, or approved by any federal agency and that have the potential to affect cultural resources as specified in Section 106. All projects that are subject to NEPA are also subject to compliance with Section 106 of the NHPA and NEPA requirements concerning cultural resources. Provisions of NHPA establish a National Register of Historic Places (the National Register), which is maintained by the National Park Service, the Advisory Councils on Historic Preservation, State Historic Preservation Offices, and grants-in-aid programs.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 regulates the protection of archaeological resources and sites on federal and Native American lands.

Paleontological Resources Preservation Act

The Paleontological Resources Preservation Act of 2002 codifies the generally accepted practice of limited vertebrate fossil collection and limited collection of other rare and scientifically significant fossils by qualified researchers. Researchers must obtain a permit from the appropriate State or federal agency and agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) is a federal law passed in 1990 that mandates museums and federal agencies to return certain Native American cultural items—such as human remains, funerary objects, sacred objects, or objects of cultural patrimony—to lineal descendants or culturally affiliated Native American tribes.

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State Regulations

State Planning Law and California Complete Streets Act

State planning law (California Government Code Section 65300) requires every city in California to adopt a comprehensive, long-term general plan for physical development of a city and its sphere of influence. A general plan should consist of an integrated and internally consistent set of goals and policies that are grouped by topic into a set of elements and are guided by a citywide vision. State law requires that a general plan address eight required elements (Land Use, Circulation, Housing, Conservation, Open Space, Noise, Safety, and Environmental Justice), but allows some discretion on the arrangement and content. Additionally, each of the specific and applicable requirements in the State planning law should be examined to determine if there are environmental issues in the community that the General Plan should address, including, but not limited to, hazards and flooding.

Additionally, on September 30, 2008, Assembly Bill (AB) 1358, the California Complete Streets Act, was signed into law, becoming effective January 1, 2011. AB 1358 places the planning, designing, and building of complete streets into the larger planning framework of the General Plan by requiring jurisdictions to amend their circulation elements to plan for multimodal transportation networks.

Airport Land Use Compatibility

Pursuant to Section 21676 of the Public Utilities Code, prior to the amendment of a General Plan or Specific Plan, or the adoption or approval of a zoning ordinance or building regulation in the planning boundary established by the airport land use commission pursuant to Section 21675 of the Public Utilities Code, the local agency shall first refer the proposed action to the Airport Land Use Commission. If the commission determines that the proposed action is inconsistent with the commission's plan, the referring agency shall be notified. The local agency may, after a public hearing, propose to overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the intent to minimize the public's exposure to excessive noise and safety hazards in areas around public airports.

California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965, better known as the Williamson Act, conserves agricultural and open space lands through property tax incentives and voluntary restrictive land use contracts administered by local governments under State regulations. Private landowners voluntarily restrict their land to agricultural and compatible open space uses under minimum 10-year rolling term contracts, with counties and cities also acting voluntarily. In return, restricted parcels are assessed for property tax purposes at a rate consistent with their actual use, rather than potential market value.

Nonrenewal status is applied to Williamson Act contracts that are within the nine-year termination process, during which the annual tax assessment for the property gradually increases.

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California Code of Regulations

The California Code of Regulations (Title 14, Division 3, Chapter 1) address paleontological and archaeological resources on lands administered by the California Department of Parks and Recreation, as follows:

- **Section 4307:** Geological Features. No person shall destroy, disturb, mutilate, or remove earth, sand, gravel, oil, minerals, rocks, paleontological features, or features of caves.
- **Section 4308:** Archaeological Features. No person shall remove, injure, disfigure, deface, or destroy any object of archaeological or historical interest or value.

Regional Regulations

San Joaquin Council of Governments

The San Joaquin Council of Governments (SJCOG) is the planning, financing, and coordinating agency for the San Joaquin region overseeing transportation, housing, and habitat conservation. SJCOG is a joint-powers authority made up of representatives from San Joaquin County and the cities of Stockton, Lodi, Manteca, Tracy, Ripon, Escalon, and Lathrop. SJCOG's broad range of responsibilities includes managing the Measure K transportation sales tax program, collecting county demographic and economic data, airport land use planning, and regional air quality. SJCOG partners with a network of local governments, private organizations, and community groups to deliver a variety of local, State, and federal programs that support the streets, roads, highways, public transit, and other transportation resources that help residents get where they need to be. It is also responsible for assigning each city and county its fair share of affordable housing (SJCOG 2024).

Airport Land Use Compatibility Plan for San Joaquin County

The Airport Land Use Compatibility Plan (ALUCP) for San Joaquin County is designed to protect the safety and welfare of residents and airport users in proximity to public-use airports while supporting the continued operation of these airports. The plan focuses on mitigating adverse effects such as aircraft noise, preventing the concentration of people and facilities in areas prone to aircraft accidents, and ensuring that no structures or activities interfere with navigable airspace.

For the City of Lodi, the ALUCP specifically addresses land use compatibility around the Lodi Airpark and Lodi Airport, both of which are identified as key facilities in the plan. The goal is to encourage compatible development in these areas while limiting or restricting new developments that could negatively impact airport operations or pose safety risks. The plan includes a detailed review of each airport's surrounding environment, and compatibility issues, and provides updated guidelines for managing land uses in the vicinity of these airports. The plan applies to a range of public-use airports across the county, including Lodi's airports, and aims to ensure safe, sustainable growth while maintaining the functionality of these important aviation facilities (San Joaquin County 2018).

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2022 Regional Transportation Plan/Sustainable Communities Strategy

The 2022 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) for the San Joaquin Valley region proactively links land use, air quality, and transportation needs. The RTP/SCS is federally required to be updated every four years. The SJCOG board adopted the 2022 RTP/SCS and accompanying documents at a special board meeting on August 25, 2022. The 2022 RTP/SCS aims to incorporate policies that create mixed-use neighborhoods and thus spur multifamily housing development and increase overall population and housing (SJCOG 2022a).

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) was adopted in 2001 and provides a framework for promoting the protection and recovery of natural resources, including endangered species, while streamlining the permitting process for planned development, infrastructure, and maintenance activities. The SJMSCP allows various governments and agencies, including the City of Lodi, to receive endangered species permits for activities and projects they conduct, as well as for activities and projects conducted by project applicants under their jurisdiction.

Local Regulations

City of Lodi General Plan

The City of Lodi General Plan includes the following policies on land use, transportation, agricultural resources, and historical resources.

Community Design & Livability Element

- **Policy CD-G4:** Structure new neighborhoods to promote walkability, and ensure they are integrated with the surrounding urban fabric.
- **Policy CD-G5:** Foster a well-connected street network that enhances accessibility to jobs, services, parks, schools, and shopping, particularly at the scale of pedestrians and bicyclists.

Conservation Element

- **Policy C-G5:** Encourage the identification, protection, and enhancement of archaeological resources.
- **Policy C-G6:** Preserve and enhance districts, sites, and structures that serve as significant, visible connections to Lodi's social, cultural, economic, and architectural history.
- **Policy C-G9:** Conserve energy and reduce per capita energy consumption.
- **Policy C-P7:** Adopt an agricultural conservation program (ACP) establishing a mitigation fee to protect and conserve agricultural lands:
 - The ACP shall include the collection of an agricultural mitigation fee for acreage converted from agricultural to urban use, taking into consideration all fees collected for agricultural loss (i.e., AB1600). The mitigation fee collected shall fund agricultural conservation easements, fee title acquisition, and research, the funding of agricultural education and local marketing programs, other

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capital improvement projects that clearly benefit agriculture (e.g., groundwater recharge projects) and administrative fees through an appropriate entity (“Administrative Entity”) pursuant to an administrative agreement.

- The conservation easements and fee title acquisition of conservation lands shall be used for lands determined to be of statewide significance (Prime or other Important Farmlands), or sensitive and necessary for the preservation of agricultural land, including land that may be part of a community separator as part of a comprehensive program to establish community separators. Agricultural land should be preserved at a minimum ratio of one-to-one for acres converted to urban use.
- The ACP shall encourage that conservation easement locations are prioritized as shown in Figure 7-5: (A) the Armstrong Road Agricultural/ Cluster Study area east of Lower Sacramento Road; (B) the Armstrong Road Agricultural/ Cluster Study area west of Lower Sacramento Road; (C) elsewhere in the Planning Area, one mile east and west of the Urban Reserve boundaries respectively; and (D) outside the Planning Area, elsewhere in San Joaquin County.
- The mitigation fees collected by the City shall be transferred to a farmland trust or other qualifying entity, which will arrange the purchase of conservation easements. The City shall encourage the Trust or other qualifying entity to pursue a variety of funding sources (grants, donations, taxes, or other funds) to fund implementation of the ACP.
- **Policy C-P20:** Encourage the preservation, maintenance, and adaptive reuse of existing historic buildings by developing incentives for owners of historically-significant buildings to improve their properties.
- **Policy C-P24:** Follow preservation standards outlined in the current Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, for structures listed on the National Register of Historic Places or California Register of Historical Resources.
- **Policy C-P42:** Continue to offer rebates to residential, commercial, industrial and municipal customers of Lodi Electric Utility who install photovoltaic (PV) systems or that participate in the Lodi Energy Efficient Home Improvement Rebate Program. Ensure that rebate programs are well advertised to the community and offer rebates that are sufficient to gain community interest and participation.
- **Policy C-P44:** Develop, adopt, and implement a heat island mitigation plan to reduce carbon dioxide emissions, smog, and the energy required to cool buildings. This plan should contain requirements and incentives for the use of cool roofs, cool pavements, and strategic shade tree placement, all of which may result in as much as 6-8° F temperature decrease from existing conditions.

Transportation

- **Policy T-P3:** Work collaboratively with San Joaquin County, San Joaquin Council of Governments, and Caltrans to maintain consistency with regional and State plans, and to successfully implement transportation improvements in the vicinity of Lodi.
- **Policy T-P6:** Coordinate with the San Joaquin Council of Governments and actively participate in regional transportation planning efforts to ensure that the City’s interests are reflected in regional goals and priorities.

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- **Policy T-P19:** To maintain walkability and pedestrian safety, consider roadway width and roadway design features such as islands, pedestrian refuges, pedestrian count-down signals, and other such mechanisms. This policy applies to new roadway construction as well as existing roadways where pedestrian safety issues may occur due to roadway design or width.

City of Lodi Municipal Code

Title 17 Development Code

Title 17 of the Lodi Municipal Code is the primary tool that implements the policies of the General Plan by classifying and regulating the uses of land and structures in the City of Lodi in a manner consistent with the General Plan. Per Section 17.041.010, the purpose of the Development Code is to:

- A. Provide standards for the orderly development of the city, and continue a stable pattern of land uses;
- B. Preserve the historical integrity and character of the city's neighborhoods and commercial areas;
- C. Encourage a pedestrian-friendly community by promoting a mix of land uses and pedestrian oriented design in residential and commercial areas; and
- D. Conserve and protect the natural resources of the city, including surrounding agricultural lands.

4.4.1.2 EXISTING CONDITIONS

Land Use

Lodi is located in San Joaquin County and encompasses a variety of land uses shaped by its development history and current demographic trends. This assessment outlines the existing land use conditions in the city, focusing on residential, commercial, industrial, agricultural, and open space areas. Lodi's residential areas predominantly consist of single-family homes, with multi-family housing units located primarily near the city center and along major transportation routes. Commercial land use in Lodi is primarily concentrated along Kettleman Lane, Turner Road, and Main Street. These areas include retail establishments, dining options, and various service providers. The downtown district features a historic area with a mix of shops and restaurants. Industrial zones in Lodi are mainly situated along the eastern and southern boundaries of the city. These areas host light manufacturing, warehousing, and distribution facilities. The city's proximity to major transportation routes, such as State Route 99, is advantageous for industrial operations.

Agriculture – Farmland

Table 4.4-1, *Farmland in Lodi*, shows the Department of Conservation's Farmland in Lodi's city limits, sphere of influence (SOI), and Planning Area.

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TABLE 4.4-1 FARMLAND IN LODI

Land Use Category	City Limits (Acres)	SOI (Acres)
Prime Farmland	248.6	1,776.7
Farmland of Statewide Importance	-	9.1
Unique Farmland	2.6	487.5
Farmland of Local Importance	211.4	180.1
Important Farmland Subtotal	251.2¹	2,273.3
Urban and Built-Up Land	5,523.7	689.9
Other Land	94.0	90.0
Total Area Inventoried²	6,080	3,233.3

Source: DOC 2020

1. Does not include the separate southwest portion near Interstate 5.

2. Rounded to the nearest acre.

Cultural Resources - Historical Resources

According to the record search data and the foregoing assumptions, most of the historically significant resources are clustered around the downtown area and in Woodbridge. Properties that are listed on or found eligible for listing in the National Register of Historic Places or which have not yet been evaluated for significance are presented in Table 4.4-2, *Historical Resources in Lodi*. Lodi currently has six buildings in the National Register of Historic Places as well as several others that are eligible.

TABLE 4.4-2 HISTORICAL RESOURCES IN LODI

Resource Name	Location	Year	Historic Landmark Designation	National Register Status
Bridge #29-2R	SR-99	1930		Identified, not evaluated.
Hotel Lodi	5 S. School Street	1915	NR	NR
Lodi Arch/Mission Arch	Pine Street	1907	NR, SHL, No 931	NR
Lodi Armory	333 N. Washington St	1930		Determined eligible for NR as an individual property
Lodi Carnegie Library	305 W. Pine Street	1909		Determined eligible for NR as individual property
Lodi City Hall	221 W. Pine Street	1928		Determined eligible for NR as individual property
Miyajima Hotel	4 N. Main Street	1937		Identified, not evaluated
Morse/Skinner Ranch House	13063 SR 99	1869		NR1 Listed in NR, individual property
Southern Pacific Railroad Depot	2 N. Sacramento St.	1907		Removed from eligibility for NR
Theodore H Beckman Ranch House	1150 W. Kettleman Ln.	1902	SPH14	Determined eligible for NR as a contributor to a historic district
Women's Club of Lodi	325 W. Pine Street	1923	NR	Listed in NR, individual property
IOOF Hall	18961 Lower Sacramento Rd, Woodbridge	1860		NR Listed in NR, individual property

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Resource Name	Location	Year	Historic Landmark Designation	National Register Status
San Joaquin Valley College	18500 N Lilac St, Woodbridge	1879	SHL No. 520	CR, needs reevaluation
Wood's Ferry and Wood's Bridge	County Hwy J10, Woodbridge	1852 & 1858	SHL No. 163	CR, needs reevaluation
Woodbridge	County Hwy J10, Woodbridge	1859	SHL No. 358	CR, needs reevaluation
Woodbridge Masonic Lodge #131	1040 Augusta Street, Woodbridge	1882	NR	Listed in NR, individual property

Source: Lodi 2024a

Notes:

NR – National Register

SHL – State Historic Landmark

CR – California Register

SPHI – State Point of Historic Interest

Downtown

Lodi's downtown area holds significant historical importance, serving as the heart of the city since its founding in 1869 (Lodi 2024b). Originally called Mokelumne, the city grew around the Central Pacific Railroad station, with Sacramento Street becoming the main thoroughfare (Lodi 2024b). The iconic Lodi Arch, built in 1907 for the Tokay Carnival, stands as a symbol of the city's rich agricultural heritage and community spirit (Caparoso 2018). Several historic buildings still exist in the downtown area, including the former Bank of Lodi building, the Friedberger-Blodgett Building, and the Hotel Lodi, which dates back to 1915 and is now listed on the National Register of Historic Places (Caparoso 2024; WHS 2024).

4.4.2 STANDARDS OF SIGNIFICANCE

As the lead agency, the City has determined that a project would have a significant effect on the environment if it would:

- LU-1 Physically divide an established community.
- LU-2 Cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.
- LU-3 Convert Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance (Important Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program, to nonagricultural use.
- LU-4 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.
- LU-5 Cause a substantial adverse change in the significance of a historical resource pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15064.5.
- LU-6 Result in a cumulatively significant impact related to land use and planning when considered with past, present, and reasonably foreseeable projects.

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4.4.3 PROPOSED GENERAL PLAN POLICIES

The following goals, policies, and actions from the proposed General Plan apply to land use and planning.

Community Design and Livability Element

- **Policy CD-G4:** Structure new neighborhoods to promote walkability, and ensure they are integrated with the surrounding urban fabric.
- **Policy CD-G5:** Foster a well-connected street network that enhances accessibility to jobs, services, parks, schools, and shopping, particularly at the scale of pedestrians and bicyclists.

Conservation Element

- **Policy C-G5:** Encourage the identification, protection, and enhancement of archaeological resources.
- **Policy C-G6:** Preserve and enhance districts, sites, and structures that serve as significant, visible connections to Lodi's social, cultural, economic, and architectural history.
- **Policy C-G7:** Promote community awareness and appreciation of Lodi's history, culture, and architecture.
- **Policy C-G9:** Conserve energy and reduce per capita energy consumption.
- **Policy C-P1:** Work with San Joaquin County and the City of Stockton to maintain land surrounding Lodi in agricultural use. Encourage the continuation of Flag City as a small freeway-oriented commercial node, with no residential uses.
- **Policy C-P2:** Work with San Joaquin County and relevant land owners to ensure economic viability of grape growing, winemaking, and supporting industries, to ensure the preservation of viable agricultural land use.
- **Policy C-P3:** Support the continuation of agricultural uses on lands designated for urban uses until urban development is imminent.
- **Policy C-P4:** Promote the use of the California Land Conservation Act (Williamson Act) on all agricultural lands in and around the City
- **Policy C-P5:** Encourage San Joaquin County to conserve agricultural soils, preserve agricultural land surrounding the City and promote the continuation of existing agricultural operations, by supporting the county's economic programs.
- **Policy C-P6:** Ensure that urban development does not constrain agricultural practices or adversely affect the economic viability of adjacent agricultural practices. Use appropriate buffers consistent with the recommendations of the San Joaquin County Department of Agriculture (typically no less than 150 feet) and limit incompatible uses (such as schools and hospitals) near agriculture.
- **Policy C-P10:** Maintain the City's Right-to-Farm Ordinance, and update as necessary, to protect agricultural land from nuisance suits brought by surrounding landowners
- **Policy C-P11:** Adopt an agricultural conservation program (ACP) establishing a mitigation fee to protect and conserve agricultural lands.

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- **Policy C-P12:** The ACP shall include the collection of an agricultural mitigation fee for acreage converted from agricultural to urban use, taking into consideration all fees collected for agricultural loss (i.e., AB1600). The mitigation fee collected shall fund agricultural conservation easements, fee title acquisition, and research, the funding of agricultural education and local marketing programs, other capital improvement projects that clearly benefit agriculture (e.g., groundwater recharge projects) and administrative fees through an appropriate entity (“Administrative Entity”) pursuant to an administrative agreement.
- **Policy C-P13:** The conservation easements and fee title acquisition of conservation lands shall be used for lands determined to be of statewide significance (Prime or other Important Farmlands), or sensitive and necessary for the preservation of agricultural land, including land that may be part of a community separator as part of a comprehensive program to establish community separators
- **Policy C-P14:** The ACP shall encourage that conservation easement locations are prioritized as shown in Figure 75: (A) the Armstrong Road Agricultural/Cluster Study area east of Lower Sacramento Road; (B) the Armstrong Road Agricultural/Cluster Study area west of Lower Sacramento Road; (C) elsewhere in the Planning Area, one mile east and west of the Urban Reserve boundaries respectively; and (D) outside the Planning Area, elsewhere in San Joaquin County.
- **Policy C-P15:** The mitigation fees collected by the City shall be transferred to the Central Valley Farmland Trust or other qualifying entity, which will arrange the purchase of conservation easements. The City shall encourage the Trust or other qualifying entity to pursue a variety of funding sources (grants, donations, taxes, or other funds) to fund implementation of the ACP.
- **Policy C-P24:** For future development projects on previously un-surveyed lands, require a project applicant to have a qualified archaeologist conduct the following activities: (1) conduct a record search at the Central California Information Center at the California State University, Stanislaus, and other appropriate historical repositories, (2) conduct field surveys where appropriate and required by law, and (3) prepare technical reports, where appropriate, meeting California Office of Historic Preservation Standards (Archaeological Resource Management Reports).
- **Policy C-P25:** In the event that archaeological/paleontological resources are discovered during site excavation, the City shall require that grading and construction work on the project site be suspended until the significance of the features can be determined by a qualified archaeologist/paleontologist. The City will require that a qualified archaeologist/paleontologist make recommendations for measures necessary to protect any site determined to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recovery, excavation, analysis, and curation of archaeological/paleontologist materials. City staff shall consider such recommendations and implement them where they are feasible in light of project design as previously approved by the City.
- **Policy C-P26:** If any human remains are discovered or recognized in any location on the project site, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - The San Joaquin County Coroner/Sheriff has been informed and has determined that no investigation of the cause of death is required; and

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- If the remains are of Native American origin: (1) the descendants of the deceased Native Americans have made a timely recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or (2) The Native American Heritage Commission was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the commission.
- **Policy C-P27:** Encourage the preservation, maintenance, and adaptive reuse of existing historic buildings to by developing incentives for owners of historically-significant buildings to improve their properties. This may include reducing or waiving building permit fees for improvements to historic structures.
- **Policy C-P28:** Require that, prior to the demolition of a historic structure, developers offer the structure for relocation by interested parties.
- **Policy C-P29:** Require that environmental review consistent with the California Environmental Quality Act be conducted on demolition permit applications for buildings designated as, or potentially eligible for designation as, historic structures.
- **Policy C-P30:** Conduct a comprehensive survey of historic resources in Lodi, including consideration of potentially eligible historic resources. Update Figure 7-3 upon completion of the survey. Designate a structure as historic if it:
 - Exemplifies or reflects special elements of the city’s cultural, architectural, aesthetic, social, economic, political, artistic, and/or engineering heritage;
 - Is identified with persons, businesses, or events significant to local, State, or National history;
 - Embodies distinctive characteristics of style, type, period, or method of construction or is a valuable example of the use of indigenous materials or craftsmanship;
 - Represents of the notable work of a builder, designer, engineer, or architect;
 - Is unique location or singular physical characteristic represents an established and familiar visual feature of a neighborhood, community, or the city; and/or
- **Policy C-P31:** Designate a district as historic if it:
 - Is a geographically definable area possessing a concentration or continuity of sites, buildings, structures, or objects as unified by past events or aesthetically by plan or physical development.
 - Identify relevant key neighborhoods either as historic districts or merit districts. Designate accordingly if 50% of property owners in the proposed district agree to the designation.
 - An “Historic District” means any area containing a concentration of improvements that has a special character, architectural importance, historical interest, or aesthetic value, which possesses integrity of location, design, setting, materials, workmanship, feeling, and association or which represents one or more architectural periods or styles typical to the history of Lodi.
 - A “Merit District” recognizes a district’s history but does not provide for a regulatory structure at this time. The structures of these districts may not be architecturally significant, but the role that these neighborhoods have played in the city’s development, the cultural and economic conditions that resulted in the construction of these neighborhoods and the stories surrounding them make them an important part of the city’s history for which they should be acknowledged and celebrated.

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- **Policy C-P32:** Establish a Historic Preservation Commission to serve as an advisory board to the City Council. The Commission should:
 - Guide the protection, appreciation and preservation of Lodi's historic resources;
 - Lead the implementation, enforcement and education efforts related to the historic preservation ordinance called for by the General Plan; and
 - Partner with property owners, residents, business owners, and the community at large to retain and improve historic resources.
 - Be made up of individuals with qualifications in such fields as architecture, history, architectural history, cultural anthropology or other disciplines related to historic preservation, to the extent feasible.
- **Policy C-P33:** Prepare and adopt an historic preservation ordinance consistent with the guidelines from the Office of Historic Preservation's Drafting Effective Historic Preservation Ordinances.
- **Policy C-P34:** Pursue status as a Certified Local Government through the National Parks Service and California Office of Historic Preservation in order to access technical assistance services and funding opportunities for historic preservation. CLGs must comply with the following requirements:
 - Enforce appropriate state and local laws and regulations for the designation and protection of historic properties, including adoption of a historic preservation plan or inclusion of a historic preservation element in the General Plan
 - Establish a historic preservation review commission by local ordinance
 - Maintain a system for the survey and inventory of historic properties
 - Provide for public participation in the local preservation program
 - Satisfactorily perform responsibilities delegated to it by the State.
- **Policy C-P35:** Follow preservation standards outlined in the current Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, for structures listed on the National Register of Historic Places or California Register of Historical Resources.
- **Policy C-P36:** Coordinate historic preservation efforts with other agencies and organizations, including the Lodi Historical Society, Chamber of Commerce, San Joaquin County Historical Society and other historical organizations.
- **Policy C-P61:** Encourage the use of passive and active solar devices such as solar collectors, solar cells, and solar heating systems into the design of local buildings. Promote voluntary participation in incentive programs to increase the use of solar photovoltaic systems in new and existing residential, commercial, institutional, and public buildings. Study the fiscal feasibility of an incentive program for property owners who install photovoltaic or comparable solar energy generating devices.
- **Policy C-P62:** Work with the California Energy Commission and other public and non-profit agencies to promote the use of programs that encourage developers to surpass Title 24 Energy Efficiency standards by utilizing renewable energy systems and more efficient practices that conserve energy, including, but not limited to natural gas, hydrogen or electrical vehicles. Offer incentives such as density bonus,

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expedited process, fee reduction/waiver to property owners and developers who exceed California Title 24 energy efficiency standards.

- **Policy C-P63:** Develop, adopt, and implement a heat island mitigation plan to reduce carbon dioxide emissions, smog, and the energy required to cool buildings. This plan should contain requirements and incentives for the use of cool roofs, cool pavements, and strategic shade tree placement, all of which may result in as much as 6-8° F temperature decrease from existing conditions.

Transportation

- **Policy T-P3:** Work collaboratively with San Joaquin County, San Joaquin Council of Governments, and Caltrans to maintain consistency with regional and State plans, and to successfully implement transportation improvements in the vicinity of Lodi.
- **Policy T-P6:** Coordinate with the San Joaquin Council of Governments and actively participate in regional transportation planning efforts to ensure that the City's interests are reflected in regional goals and priorities.
- **Policy T-P19:** To maintain walkability and pedestrian safety, consider roadway width and roadway design features such as islands, pedestrian refuges, pedestrian count-down signals, and other such mechanisms. This policy applies to new roadway construction as well as existing roadways where pedestrian safety issues may occur due to roadway design or width.

4.4.4 ENVIRONMENTAL IMPACTS

LU-1 The proposed project would not divide an established community.

The 2009 Certified Environmental Impact Report (EIR) indicated that the General Plan would not physically divide an established community and there would be no impact.

The City and SOI are urbanized and relatively built-out. As with the 2009 Certified EIR, the proposed project would improve access and mobility for existing and future residents by providing vehicular connections and non-motorized transportation options, and the land use pattern under the proposed project would increase building intensity. No aspect of the proposed project would divide an established community. Additionally, the General Plan Update includes policies like Policy CD-G4, which structures new neighborhoods to promote walkability and ensure they are integrated with the surrounding urban fabric, as well as Policy CD-G5, which fosters a well-connected street network that enhances accessibility to jobs, services, parks, schools, and shopping, particularly at the scale of pedestrians and bicyclists. These General Plan Update policies would ensure compatibility within land uses and avoid physically dividing an established community. Therefore, as with the 2009 Certified EIR, no impacts would occur under the proposed project.

Level of Significance Without Mitigation: Impact LU-1 would have no impact.

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LU-2	Project implementation would not conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect.
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The 2009 Certified EIR indicated that the General Plan would not conflict with local and regional plans, and impacts are less than significant.

One of the goals of the proposed project is to reconcile discrepancies between the General Plan Land Use map and sites that are already developed in urban areas. By reconciling such discrepancies, the proposed project would ensure that there are no conflicts with local plans. Additionally, the proposed project would designate additional sites for housing, which would ensure the City meets its obligations that are stated in the City's Housing Element. Additionally, as no new designations are proposed under the General Plan Update, the Zoning Ordinance would not require major revisions. Future development under the proposed project may require General Plan and/or Zoning Amendments to ensure consistency. The 2022 SJCOG RTP/SCS includes policies that aim to conserve energy, maximize mobility, increase safety, preserve the efficiency of the existing transportation system, support economic vitality, promote interagency coordination, maximize cost-effectiveness, and improve quality of life (SJCOG 2022a). The General Plan Update policies would be consistent with the policies of the 2022 RTP/SCS by including the following:

- **Policy CD-G4:** Structure new neighborhoods to promote walkability, and ensure they are integrated with the surrounding urban fabric.
- **Policy CD-G5:** Foster a well-connected street network that enhances accessibility to jobs, services, parks, schools, and shopping, particularly at the scale of pedestrians and bicyclists.
- **Policy C-P61:** Encourage the use of passive and active solar devices such as solar collectors, solar cells, and solar heating systems into the design of local buildings. Promote voluntary participation in incentive programs to increase the use of solar photovoltaic systems in new and existing residential, commercial, institutional, and public buildings. Study the fiscal feasibility of an incentive program for property owners who install photovoltaic or comparable solar energy generating devices.
- **Policy C-P62:** Work with the California Energy Commission and other public and non-profit agencies to promote the use of programs that encourage developers to surpass Title 24 Energy Efficiency standards by utilizing renewable energy systems and more efficient practices that conserve energy, including, but not limited to natural gas, hydrogen or electrical vehicles. Offer incentives such as density bonus, expedited process, fee reduction/waiver to property owners and developers who exceed California Title 24 energy efficiency standards.
- **Policy C-P63:** Develop, adopt, and implement a heat island mitigation plan to reduce carbon dioxide emissions, smog, and the energy required to cool buildings. This plan should contain requirements and incentives for the use of cool roofs, cool pavements, and strategic shade tree placement, all of which may result in as much as 6-8° F temperature decrease from existing conditions.
- **Policy C-G9:** Conserve energy and reduce per capita energy consumption.

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- **Policy T-P3:** Work collaboratively with San Joaquin County, San Joaquin Council of Governments, and Caltrans to maintain consistency with regional and State plans, and to successfully implement transportation improvements in the vicinity of Lodi.
- **Policy T-P6:** Coordinate with the San Joaquin Council of Governments and actively participate in regional transportation planning efforts to ensure that the City's interests are reflected in regional goals and priorities.
- **Policy T-P19:** To maintain walkability and pedestrian safety, consider roadway width and roadway design features such as islands, pedestrian refuges, pedestrian count-down signals, and other such mechanisms. This policy applies to new roadway construction as well as existing roadways where pedestrian safety issues may occur due to roadway design or width.

Therefore, as with the 2009 Certified EIR, impacts would be less than significant.

Level of Significance Without Mitigation: Impact LU-2 would be less than significant.

LU-3	The proposed project would convert acres of Important Farmland to nonagricultural use.
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The 2009 Certified EIR indicated that some conversion of agricultural land to urban use would be inevitable to meet Lodi's growth needs, including Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. The 2009 Certified EIR concluded that the conversion of agricultural land to urban use cannot be fully mitigated, except by preventing development altogether. However, the agricultural conservation program, including conservation easements outlined in Policy C-P8, helps minimize the cumulative impact of converting prime agricultural lands. While this policy does not reduce the total amount of Prime Farmland converted in the proposed General Plan Area, it contributes to the protection of regional Prime Farmland.

As indicated in Table 4.4-1, the land in the city limits is predominantly designated as Urban and Built-up Land. Specifically, the area bisected by Interstate 5 is designated as both Prime Farmland and Unique Farmland. Within the Planning Area, there are approximately 3,059.39 acres of Important Farmland.

The General Plan Update includes policies aimed at preserving agricultural lands while addressing growth needs. Policy C-P12 mandates the collection of an agricultural mitigation fee when agricultural land is converted to urban use. The fee will fund agricultural conservation easements, land acquisition, research, education, marketing programs, and other agricultural projects. Policy C-P13 emphasizes the importance of conserving lands of statewide significance, such as Prime or Important Farmlands, and sensitive areas vital for agricultural protection, including community separators. Policy C-P14 prioritizes conservation easement locations in specific areas, including the Armstrong Road Agricultural/Cluster Study area and regions near the Urban Reserve boundaries. Finally, Policy C-P15 specifies that mitigation fees will be transferred to the Central Valley Farmland Trust or another qualified entity to manage the purchase of conservation easements and seek additional funding sources to implement the agricultural conservation program (ACP).

While these measures are designed to minimize farmland conversion, the proposed project could still lead to the conversion of prime farmland to nonagricultural uses in the Planning Area. Although future

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development in the proposed project would occur primarily in urban areas to preserve agricultural land, this analysis conservatively concludes that the proposed project may still result in the conversion of farmland, leading to potentially significant impacts.

Level of Significance Without Mitigation: Impact LU-3 would be significant and unavoidable.

Mitigation Measure

The criterion for mitigation under CEQA is feasible mitigation that lessens a project's impact. Agricultural conservation easements are a possible mitigation measure under CEQA. Programs that establish agricultural conservation easements and in-lieu fees for mitigation banking are most effective when determined concurrently with project approval. However, the effectiveness and extent to which future projects would opt-in to agricultural conservation easements as mitigation measures cannot be determined in this analysis; therefore, this impact would remain significant and unavoidable.

Level of Significance With Mitigation: Impact LU-3 would be significant and unavoidable.

LU-4	The proposed project would involve other changes in the existing environment which, due to their location or nature, would result in the conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.
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As shown in Table 4.4-1, the City limits and SOI contains approximately 2,524 acres of Important Farmland. According to the California Department of Fish and Wildlife, there are no forestlands or timberlands within San Joaquin County (CDFW 2015). Additionally, the City is urbanized. Therefore, future development under the proposed project would not result in the conversion of forest land to non-forest use.

The General Plan Update includes policies aimed at preserving agricultural land while accommodating growth. Policy C-P12 requires the collection of an agricultural mitigation fee when agricultural land is converted to urban uses. These funds will support agricultural conservation easements, land acquisition, research, education, marketing programs, and other related agricultural initiatives. Policy C-P13 underscores the importance of conserving lands of statewide significance, such as Prime and Important Farmlands, along with sensitive areas critical for agricultural protection, including community separators. Policy C-P14 prioritizes conservation easement efforts in specific locations, such as the Armstrong Road Agricultural/Cluster Study area and regions near Urban Reserve boundaries. Lastly, Policy C-P15 outlines that mitigation fees will be directed to the Central Valley Farmland Trust or another qualified entity to manage the purchase of conservation easements and seek additional funding for implementing the agricultural conservation program (ACP).

Although these policies are designed to reduce farmland conversion and its impacts, the proposed project could still result in the conversion of farmland to non-agricultural uses within the Planning Area. While future development is planned primarily in urban areas to preserve agricultural land, this analysis concludes that the proposed project may still lead to the conversion of farmland, potentially resulting in significant impacts.

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Level of Significance Without Mitigation: Impact LU-4 would be significant and unavoidable.

Mitigation Measure

See discussion under Impact LU-3.

Level of Significance With Mitigation: Impact LU-4 would be significant and unavoidable.

LU-5	Development of the proposed project would impact identified historic resources.
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The 2009 Certified EIR indicated that most of the City’s historic resources are in the historic downtown area, and while intensification could impact potentially significant historic structures, impacts would be less than significant due to the implementation of the General Plan policies.

According to the National Register of Historic Places and California Historical Resources, there are five historic resources in the City and SOI (NPS 2020; OHP 2023). Future development under the proposed project could adversely impact historic resources through changes to accommodate adaptive reuse, removal, or reconstruction. Known or future historic sites or resources listed in the national, California, or local registers would be protected through State and federal regulations. Implementation of the General Plan Update policies would reduce impacts on historic resources. Policies C-P27 and C-P28 encourage preserving, maintaining, and relocating historic buildings before demolition, with incentives for property owners. Policy C-P29 requires environmental review for demolition permits of historic structures. Policy C-P30 calls for a comprehensive survey of historic resources in Lodi. Policy C-P31 outlines criteria for designating historic and merit districts based on architectural and historical significance. Policy C-P32 establishes a Historic Preservation Commission to guide and enforce preservation efforts. Policy C-P33 advocates for a historic preservation ordinance, while C-P34 seeks Certified Local Government status to access preservation funding and support. Policy C-P35 emphasizes adherence to preservation standards for historic properties, and Policy C-P36 promotes collaboration with other historical organizations.

In addition, the downtown district, which has a period of significance from 1866 to 1958, is notable for its architectural and commercial importance. The J.O. Eaton Building (161-165 S. Main Street), built in 1866, stands as the earliest, while others like the Charles G. Cummings building, J. Frank Collins Building (1883), Joel M. Pruyn Building (1885), Schmiedlin Bros. Building (1895), and Bank of Lodi Building (1895) showcase the evolution of the city’s commercial architecture (WHS 2024). Therefore, structures already existing in the Lodi downtown that are 50 years or older could have the potential to be designated as a historic resource pursuant to CEQA Guidelines Section 15064.5. Under the proposed project, the Downtown Plan includes a goal to preserve the historic character of downtown. This will be achieved through tools for historic preservation and adaptive reuse, including creating a historic sites inventory with input from the San Joaquin Historical Society. Currently, the City does not have a sites inventory related to historic preservation (Lodi 2024c).

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Future development under the proposed project could adversely impact historic resources through changes to accommodate adaptive use, removal, or reconstruction. Known or future historic sites or resources listed in the national, California, or local registers maintained by the City would be protected through State and federal regulations restricting the alteration, relocation, and demolition of historical resources. Compliance with the State and federal regulations would ensure that development would not result in adverse impacts to identified historic and cultural resources. While the regulations provide a process for recognizing historic buildings and places, they do not prevent the reuse or modification of them. As such, impacts would be potentially significant.

Level of Significance Without Mitigation: Impact LU-5 would be potentially significant.

Mitigation Measures

- LU-1 Prior to any demolition work or significant alterations to any building or structure in Lodi's downtown that is 50 years old or older, the City shall ensure that a qualified architectural historian who meets the Secretary of the Interior's Professional Qualification Standards evaluate the building or structure for eligibility for listing on the National Register, California Register, and as a Lodi Historic Landmark. This evaluation will specifically consider the historical significance of structures in the context of Lodi's downtown development.
- LU-2 Prior to any demolition work or significant alterations initiated at known historical resources or a resource identified via implementation of Mitigation Measure LU-1, the City shall ensure that a qualified architectural historian who meets the Secretary of the Interior's Professional Qualification Standards identifies character-defining features of each historical resource. According to guidance from the National Park Service, a historical resource "must retain... the essential physical features [i.e., character-defining features] that enable it to convey its historic identity. The essential physical features are those features that define both why a property is significant...and when it was significant" (National Park Service 1997). The identification of character-defining features is necessary for complete documentation of each historical resource as well as appropriate public interpretation and salvage plans. Demolition permits may be issued under "emergency" work in the event of a major human-made or natural disaster.
- LU-3 Prior to any demolition work or significant alterations initiated for a known historical resource or a resource identified via implementation of Mitigation Measure LU-1, the City shall ensure that a qualified architectural historian who meets the Secretary of the Interior's Professional Qualification Standards thoroughly documents each building and associated landscaping and setting in Lodi's downtown. Documentation shall include still photography and a written documentary record of the building to the National Park Service's standards of the Historic American Buildings Survey (HABS) or the Historic American Engineering Record (HAER), including accurate scaled mapping and architectural descriptions. If available, scaled architectural plans will also be included. Photos include large-format (4"x5") black-and-white negatives and 8"x10" enlargements. Digital photography may be substituted for large-format negative photography if archived locally. The record shall be accompanied by a report containing site-specific history and appropriate contextual information. This information shall be gathered through site-specific and comparative archival research and oral history collection as appropriate. Copies of the records shall be submitted to the

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Northwest Information Center at Sonoma State University. CEQA Guidelines Section 15064.5(b)(3) states that a project that follows the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), shall be considered as mitigated to a level of less than significant. Therefore, if a structure in Lodi’s downtown is determined to be a historical resource under the project-by-project review described in Mitigation Measure LU-1, a structure is determined to be a historical resource as defined by CEQA, the Secretary of the Interior’s guidelines referenced above shall be followed for demolition, rehabilitation, and/or alternation projects.

Finding

Mitigation Measures LU-1 and LU-2 would ensure that any unknown/unevaluated buildings or structures 50 years or older in Lodi’s downtown area are evaluated for their potential historical significance. Mitigation Measure LU-3 requires that historic structures in Lodi’s downtown that are proposed for development under the proposed project be documented prior to any demolition or significant alteration and that the Secretary of the Interior’s Guidelines are followed for demolition, rehabilitation, and/or alternation projects.

Future development or redevelopment in Lodi’s downtown may adversely affect historic resources identified in the City’s local historic resource survey, despite the implementation of mitigation measures. For instance, alterations to the immediate surroundings of registered and potential historic sites could significantly impact their historical significance. Therefore, Impact LU-4 is considered significant and unavoidable.

Level of Significance Without Mitigation: Impact LU-5 would be significant and unavoidable.

4.4.5 CUMULATIVE IMPACTS

LU-6	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative land use and planning impacts in the area.
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The proposed project is likely to have cumulative impacts on land use, agricultural resources, and historic resources in Lodi. While the project would not physically divide an established community, as indicated in the previous analyses, future developments across the region could collectively alter the character and connectivity of the area. The cumulative increase in building intensity and urbanization may lead to a loss of important farmland, particularly Prime Farmland, despite policies aimed at agricultural conservation. Furthermore, the potential adverse effects on historic resources in downtown Lodi—stemming from changes to the immediate surroundings of registered and potential historic sites—could be compounded by other projects in the area, leading to a significant cumulative impact on Lodi’s historical significance. Overall, the combined effects of multiple developments may result in significant and unavoidable impacts on Lodi’s agricultural and historic resources.

Level of Significance Without Mitigation: Impact LU-6 would significant and unavoidable.

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4.5 NOISE

This section describes the potential noise impacts associated with the adoption and implementation of the City of Lodi General Plan Update (proposed project) compared to the existing General Plan (approved project). This section describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential noise impacts, and identifies General Plan policies and feasible mitigation measures that could mitigate any potentially significant impacts.

4.5.1 ENVIRONMENTAL SETTING

4.5.1.1 NOISE TERMINOLOGY AND DESCRIPTORS

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as “noisiness” or “loudness.”

The following are brief definitions of terminology used in this document:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A unitless measure of sound, expressed on a logarithmic scale and with respect to a defined reference sound pressure. The standard reference pressure is 20 micropascals (μPa).
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent Continuous Noise Level (L_{eq}); also called the Energy-Equivalent Noise Level.** The value of an equivalent, steady sound level, which, in a stated time period (often over an hour) and at a stated location, has the same A-weighted sound energy as the time-varying sound. Thus, the L_{eq} metric is a single numerical value that represents the equivalent amount of variable sound energy received by a receptor over the specified duration.
- **Statistical Sound Level (L_n).** The sound level that is exceeded “n” percent of time during a given sample period. For example, the L_{50} level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the “median sound level.” The L_{10} level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and this is often known as the “intrusive sound level.” The L_{90} is the sound level exceeded 90 percent of the time and is often considered the “effective background level” or “residual noise level.”
- **Sound Exposure Level (SEL):** The cumulative exposure of sound energy over a stated period of time.
- **Maximum Sound Level (L_{max}).** The highest root mean square sound level (RMS) measured during the measurement period.

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- **Root Mean Square Sound Level (RMS).** The square root of the average of the square of the sound pressure over the measurement period.
- **Day-Night Sound Level (L_{dn} or DNL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dBA added from 7:00 p.m. to 10:00 p.m. and 10 dBA from 10:00 p.m. to 7:00 a.m. NOTE: For general community/environmental noise, CNEL and L_{dn} values rarely differ by more than 1 dBA (with the CNEL being only slightly more restrictive – that is, higher than the L_{dn} value). As a matter of practice, L_{dn} and CNEL values are interchangeable and are treated as equivalent in this assessment.
- **Peak Particle Velocity (PPV).** The peak rate of speed at which soil particles move (e.g., inches per second) due to ground vibration.
- **Sensitive Receptor.** Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

4.5.1.2 CHARACTERISTICS OF SOUND

When an object vibrates, it radiates part of its energy in the form of a pressure wave. Sound is a pressure wave transmitted through the air. Technically, airborne sound is a rapid fluctuation or oscillation of air pressure above and below atmospheric pressure that creates sound waves.

Sound can be described in terms of amplitude (loudness), frequency (pitch), or duration (time). Loudness or amplitude is measured in dB, frequency or pitch is measured in Hertz (Hz) or cycles per second, and duration or time variations is measured in seconds or minutes.

Amplitude

Unlike linear units, such as inches or pounds, decibels are measured on a logarithmic scale. Because of the physical characteristics of noise transmission and perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 4.5-1, *Noise Perceptibility*, presents the subjective effect of changes in sound pressure levels. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud). Changes of 1 to 3 dBA are detectable under quiet, controlled conditions, and changes of less than 1 dBA are usually not discernible (even under ideal conditions). A 3 dBA change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dBA is readily discernible to most people in an exterior environment, and a 10 dBA change is perceived as a doubling (or halving) of the sound.

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TABLE 4.5-1 NOISE PERCEPTIBILITY

Change in dB	Noise Level
± 3 dB	Threshold of human perceptibility
± 5 dB	Clearly noticeable change in noise level
± 10 dB	Half or twice as loud
± 20 dB	Much quieter or louder

Source: Caltrans 2013.

Frequency

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all but are “felt” more as a vibration (predominantly in a person’s chest cavity). Similarly, though people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz.

When describing the sound and its effect on a human population, A-weighted decibel (dBA) sound levels are typically used to approximate the response of the human ear. The A-weighted noise level has been found to correlate well with people’s judgments of the “noisiness” of different sounds and has been used for many years as a measure of community and industrial noise.

Duration

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time-varying period (called L_{eq}), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time; half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Similarly, the L_2 , L_8 , and L_{25} values represent the noise levels that are exceeded 2 (1.67), 8 (8.33), and 25 percent of the time or 1, 5, and 15 minutes per hour, respectively. These “n” values are typically used to demonstrate compliance for stationary noise sources with many cities’ noise ordinances. Other values typically noted during a noise survey are the L_{min} and L_{max} . These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period, respectively.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, State law, and many local jurisdictions use an adjusted 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (L_{dn}).

Sound Propagation

Sound dissipates exponentially with distance from the noise source. This phenomenon is known as “spreading loss.” For a single-point source, sound levels decrease by approximately 6 dBA for each doubling of distance from the source (conservatively neglecting ground attenuation effects, air absorption factors, and barrier shielding). For example, if a backhoe at 50 feet generates 84 dBA, at 100 feet the noise level would

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be 78 dBA, and at 200 feet it would be 72 dBA. This drop-off rate is appropriate for noise generated by on-site operations from stationary equipment or activity at a project site. If noise is produced by a line source, such as highway traffic, the sound decreases by 3 dBA for each doubling of distance over a reflective (“hard site”) surface, such as concrete or asphalt. Line source noise in a relatively flat environment with ground-level absorptive vegetation decreases by an additional 1.5 dBA for each doubling of distance.

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. Extended periods of noise exposure above 90 dBA results in permanent cell damage, which is the main driver for employee hearing protection regulations in the workplace. For community environments, the ambient or background noise problem is widespread, though generally worse in urban areas than in outlying, less-developed areas. Elevated ambient noise levels can result in noise interference (e.g., speech interruption/masking, sleep disturbance, disturbance of concentration) and cause annoyance. Although the A-weighted scale and the energy-equivalent metric are commonly used to quantify the range of human response to individual events or general community sound levels, the degree of annoyance or other response also depends on several other perceptibility factors, including:

- Ambient (background) sound level
- General nature of the existing conditions (e.g., quiet, rural, or busy urban)
- Difference between the magnitude of the sound event level and the ambient condition
- Duration of the sound event
- Number of event occurrences and their repetitiveness
- Time of day that the event occurs

Since most people do not routinely work with decibels or A-weighted sound levels, it is often difficult to appreciate what a given sound pressure level number means. To help relate noise level values to common experience, Table 4.5-2, *Typical Noise Levels*, shows typical noise levels from familiar sources.

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TABLE 4.5-2 TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet Flyover at 1,000 feet		
	100	
Gas Lawn Mower at three feet		
	90	
Diesel Truck at 50 feet, at 50 mph		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (background)
	20	
Very Remote & Unpopulated Area Nighttime		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Caltrans 2013.

4.5.1.3 CHARACTERISTICS OF VIBRATION

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities stemming from operations of railroads or vibration-intensive stationary sources but can also be associated with construction equipment, such as jackhammers, pile drivers, and hydraulic hammers. As with noise, vibration can be described by both its amplitude and frequency. Vibration displacement is the distance that a point on a surface moves away from its original static position, velocity is the instantaneous speed at which a point on a surface moves, and acceleration is the rate of change of the speed. Each of these descriptors can be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During construction, the operation of construction equipment can cause ground borne vibration. During the operational phase of a project, receptors may be subject to levels of vibration that can cause annoyance due to noise generated from the vibration of a structure or items in a structure.

Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or the root mean square (RMS) velocity. PPV is the maximum instantaneous peak of the vibration signal and RMS is the square root of the average of the squared amplitude of the signal. PPV is appropriate for evaluating potential building damage.

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As with airborne sound, annoyance with vibrational energy is a subjective measure, depending on the level of activity and the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Persons accustomed to elevated ambient vibration levels, such as in an urban environment, may tolerate higher vibration levels. Table 4.5-3, *Human Reaction to Typical Vibration Levels*, displays the human response and the effects on buildings resulting from continuous vibration (in terms of various levels of PPV).

TABLE 4.5-3 HUMAN REACTION TO TYPICAL VIBRATION LEVELS

Vibration Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.006–0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibration begins to annoy people	Virtually no risk of “architectural” (i.e. not structural) damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk to “architectural” damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage

Source: Caltrans 2020.

4.5.1.4 REGULATORY FRAMEWORK

Federal Regulations

Federal Highway Administration

The Federal Highway Administration (FHWA) has developed noise abatement criteria that are used for federally funded roadway projects or projects that require federal review. These criteria are discussed in detail in Title 23, Part 772 of the Federal Code of Regulations (23CFR772). These noise criteria are based on Leq(h) and are summarized in Table 4.5-4, *FHWA Noise Abatement Criteria*.

TABLE 4.5-4 FHWA NOISE ABATEMENT CRITERIA

Activity Category	Design Noise Levels Leq(h), dBA	Description of Activity Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas
C	72 (Exterior)	Developed lands
D	--	Undeveloped lands
E	52 (Interior)	Residences, motels, hotel, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums

Source: FHWA 2024

United States Environmental Protection Agency

The United States Environmental Protection Agency (U.S. EPA) has identified the relationship between noise levels and human responses. The U.S. EPA has determined that over a 24-hour period, a Leq of 70 dBA will result in some hearing loss. Interference with activity and annoyance will not occur if exterior levels are maintained at a Leq of 55 dBA and interior levels at or below 45 dBA. Although these levels are relevant for planning and design and useful for informational purposes, they are not land use planning criteria because they do not consider economic cost, technical feasibility, or other needs of the community (U.S. EPA 1974).

The U.S. EPA has set 55 dBA Ldn as the basic goal for residential environments (exterior). However, other federal agencies, in consideration of their own program requirements and goals, as well as the difficulty of actually achieving a goal of 55 dBA Ldn, have generally agreed on the 65 dBA Ldn exterior level as being appropriate for residential uses. At 65 dBA Ldn activity interference is kept to a minimum, and annoyance levels are still low. It is also a level that can realistically be achieved (U.S. EPA 1978).

The federal government regulates occupational noise exposure common in the workplace through the Occupational Health and Safety Administration under the U.S. EPA. Noise exposure of this type is dependent on site-specific work conditions and is addressed through a facility's or construction contractor's health and safety plan. Except construction workers involved in general facility construction, site-specific occupational noise is outside the scope of this program-level analysis and is not addressed further in this document.

United States Department of Housing and Urban Development

The United States's Department of Housing and Urban Development (HUD) was established in response to the Urban Development Act of 1965 (Public Law 90-448) and was tasked by the Housing and Urban Development Act of 1965 (Public Law 89-117) "to determine feasible methods of reducing the economic loss and hardships suffered by homeowners as a result of the depreciation in value of their properties following the construction of airports in the vicinity of their homes."

HUD first issued formal requirements related specifically to noise in 1971 (HUD Circular 13902). These requirements contained standards for exterior noise levels along with policies for approving HUD-supported or assisted housing projects in high noise areas. In general, these requirements established the following three ones (HUD 1985):

- 65 dBA Ldn or less. An acceptable zone where all projects could be approved.
- Exceeding 65 dBA Ldn but not exceeding 75 dBA Ldn. A normally unacceptable zone where mitigation measures would be required and each project would have to be individually evaluated for approval or denial. These measures must provide 5 dBA of attenuation above the attenuation provided by standard construction required in a 65 to 70 dBA Ldn area and 10 dBA of attenuation in a 70 to 75 dBA Ldn area.
- Exceeding 75 dBA Ldn. An unacceptable zone in which projects would not, as a rule, be approved.

HUD's regulations do not include interior noise standards. Rather a goal of 45 dBA Ldn is set forth and attenuation requirements are geared towards achieving that goal (HUD 1985). HUD assumes that using standard construction practices, any building will provide sufficient attenuation so that if the exterior level

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is 65 dBA Ldn or less, the interior level will be 45 dBA Ldn or less. Thus, structural attenuation is assumed at 20 dBA. However, HUD regulations were solely promulgated for residential development requiring government funding and are not related to the operation of schools or churches.

State Regulations

General Plan Guidelines

The State of California, through its General Plan Guidelines, discusses how ambient noise should influence land use and development decisions and includes a table of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable uses at different noise levels, expressed in CNEL (OPR 2023). A conditionally acceptable designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use and needed noise insulation features are incorporated in the design. By comparison, a normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements. The general plan guidelines provide cities with recommended community noise and land use compatibility standards that can be adopted or modified at the local level based on conditions and types of land uses specific to that jurisdiction.

California Noise Insulation Standards, California Code of Regulations, Title 24

The California Building Code (CBC) is Title 24 of the California Code of Regulations. CBC Part 2, Volume 1, Chapter 12, Section 1206.4, Allowable Interior Noise Levels, requires that interior noise levels attributable to exterior sources not exceed 45 dBA in any habitable room. The noise metric is evaluated as either L_{dn} (the day-night average sound level) or CNEL (the community noise equivalent level), whichever is consistent with the noise element of the local general plan.

The State of California's noise insulation standards for nonresidential uses are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 11, California Green Building Standards Code (CALGreen). CALGreen noise standards are applied to new or renovation construction projects in California to control interior noise levels resulting from exterior noise sources. Proposed projects may use either the prescriptive method (Section 5.507.4.1) or the performance method (5.507.4.2) to show compliance. Under the prescriptive method, a project must demonstrate transmission loss ratings for the wall and roof-ceiling assemblies and exterior windows when located within a noise environment of 65 dBA CNEL or higher. Under the performance method, a project must demonstrate that interior noise levels do not exceed 50 dBA $L_{eq(1hr)}$. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

California Department of Health Services

The Office of Noise Control in the State Department of Health Services has developed criteria and guidelines for local governments to use when setting standards for human exposure to noise and preparing noise elements for General Plans (OPR 2024). These guidelines include noise exposure levels for both exterior and interior environments. In addition, the California Code of Regulations sets forth requirements for the insulation of multi-family residential dwelling units from excessive and potentially harmful noise. The State

indicates that locating units in areas where exterior ambient noise levels exceed 65 dBA is undesirable. Whenever such units are to be located in such areas, the developer must incorporate into building design various construction features which reduce interior noise levels to 45 dBA CNEL. These guidelines have been adapted and set as standards in the proposed Sphere of Influence.

California Department of Transportation

California Department of Transportation (Caltrans) has adopted policies and guidelines for traffic noise as outlined in Caltrans' Traffic Noise Analysis Protocol (Caltrans 1998). The noise abatement criteria specified in the protocol are the same as those specified by FHWA.

Airport Noise Standards

California Code of Regulations Title 21, Subchapter 6, Airport Noise Standards, establishes 65 dBA CNEL as the acceptable level of aircraft noise for persons living in the vicinity of airports. Noise-sensitive land uses are generally incompatible in locations where the aircraft exterior noise level exceeds 65 dBA CNEL, unless an aviation easement for aircraft noise has been acquired by the airport proprietor or the residence is a high-rise with an interior CNEL of 45 dBA or less in all habitable rooms and an air circulation or air conditioning system, as appropriate. Assembly Bill (AB) 2776 requires any person who intends to sell or lease residential properties in an airport influence area to disclose that fact to the person buying the property.

Airport Land Use Commission

The Airport Land Use Commission (ALUC) was established to ensure that there are no direct conflicts with land use, noise, or other issues that would impact the functionality and safety of airport operations. One of the key functions of the ALUC is to require that cities' and counties' general plans and zoning ordinances are consistent with the Airport Environs Land Use Plans (AELUPs), which contain noise contours, restrictions for types of construction and building heights in navigable air space, as well as requirements impacting the establishment or construction of sensitive uses within close proximity to airports.

Airport Land Use Compatibility Plan (ALUCP) for San Joaquin County

The Airport Land Use Compatibility Plan (ALUCP) for San Joaquin County is designed to protect the safety and welfare of residents and airport users in proximity to public-use airports while supporting the continued operation of these airports. The plan focuses on mitigating adverse effects such as aircraft noise, preventing the concentration of people and facilities in areas prone to aircraft accidents, and ensuring that no structures or activities interfere with navigable airspace.

For the City of Lodi, the ALUCP specifically addresses land use compatibility around the Lodi Airpark and Lodi Airport, both of which are identified as key facilities in the plan. The goal is to encourage compatible development in these areas while limiting or restricting new developments that could negatively impact airport operations or pose safety risks. The plan includes a detailed review of each airport's surrounding environment, and compatibility issues, and provides updated guidelines for managing land uses in the vicinity of these airports. The plan applies to a range of public-use airports across the county, including Lodi's airports, and aims to ensure safe, sustainable growth while maintaining the functionality of these important aviation facilities (San Joaquin County 2018).

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Local Regulations

City of Lodi General Plan Noise Element

Table 4.5-5, *Allowable Noise Exposure, Outdoor and Interior*, indicates acceptable limits of noise for various land uses for both exterior and interior environments. These limits are based on guidelines provided by the California Office of Planning and Research.

The City's General Plan noise standards are shown in Table 4.5-6, *Lodi's Community Noise and Land Use Compatibility*. Residential uses, schools, libraries, churches, hospitals, nursing homes, transit lodging (motels and hotels), auditoriums, concert halls, and amphitheaters are conditionally acceptable in areas up to 70 dBA CNEL.

TABLE 4.5-5 ALLOWABLE NOISE EXPOSURE, OUTDOOR AND INTERIOR

Land Use	Outdoor Activity Areas (CNEL) ¹	Interior Areas (CNEL)
Residential	60	45
Motels, Hotels	60	45
Public/Semi-Public	65	45
Recreational	65	50
Commercial	70	50
Industrial	75	N/A

¹For non-residential uses, where an outdoor activity area is not proposed, the standard does not apply.

Source: Lodi 2010.

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TABLE 4.5-6 LODI'S COMMUNITY NOISE AND LAND USE COMPATIBILITY

Land Uses	CNEL (dBA)					
	55	60	65	70	75	80
Residential-Low Density: Single Family, Duplex, Mobile Homes						
Residential-Multiple Family						
Transient Lodging: Hotels and Motels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playground, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Businesses, Commercial and Professional						
Industrial, Manufacturing, Utilities, Agricultural						

Explanatory Notes

	Normally Acceptable: With no special noise reduction requirements assuming standard construction.			Normally Unacceptable: New construction is discouraged. If new construction does not proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
	Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design.			Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: Lodi 2010.

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Lodi Noise Element

The City of Lodi General Plan has adopted the following impact-reducing policies:

- **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-P3:** Use the noise and land use compatibility matrix and allowable noise exposure levels as review criteria for all new land uses. Incorporate noise attenuation measures for all projects that have noise exposure levels of “conditionally acceptable” and higher. These may include:
 - Facades constructed with substantial weight and insulations;
 - Sound-rated windows in habitable rooms;
 - Sound-rated doors in all exterior entries;
 - Active cancellation;
 - Acoustic baffling of vents for chimneys, fans and gable ends;
 - Ventilation system affording comfort under closed-window conditions; and
 - Double doors and heavy roofs with ceilings of two layers of gypsum board on resilient channels to meet the highest noise level reduction requirements.
- **Policy N-P4:** Discourage noise sensitive uses such as residences, hospitals, schools, libraries, and rest homes from locating in areas with noise levels above 65 dBA. Conversely, do not permit new uses likely to produce high levels of noise (above 65dBA) from locating in or adjacent to areas with existing or planned noise-sensitive uses.
- **Policy N-P5:** Noise sensitive uses, such as residences, hospitals, schools, libraries, and rest homes, proposed in areas that have noise exposure levels of “conditionally acceptable” and higher must complete an acoustical study, prepared by a professional acoustic engineer. This study should specify the appropriate noise mitigation features to be included in the design and construction of these uses, to achieve interior noise levels consistent with the established noise criteria.
- **Policy N-P6:** Where substantial traffic noise increases (to above 70dBA) are expected, such as on Lower Sacramento Road or Harney Lane, require a minimum 12-foot setback for noise-sensitive land uses, such as residences, hospitals, schools, libraries, and rest homes.
- **Policy N-P7:** Require developers of potentially noise-generating new development to mitigate the noise impacts on adjacent properties as a condition of permit approval. This should be achieving 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 spaces, building orientation and design, landscaping and running water to mask sounds; and
- Controlling hours of operation, including deliveries and trash pickup.
- **Policy N-P8:** Update Noise Ordinance regulations to address allowed days and hours of construction, types of work, construction equipment (including noise and distance thresholds), notification of neighbors, and sound attenuation devices.
- **Policy N-P9:** Develop and implement noise reduction measures when undertaking improvements, extensions, or design changes to City streets where feasible and appropriate.
- **Policy N-P10:** Encourage transit agencies and rail companies to develop and apply noise reduction technologies for their vehicles to reduce the noise and vibration impacts of bus and rail traffic.
- **Policy N-P11:** Coordinate with the California Public Utilities Commission and other pertinent agencies and stakeholders to determine the feasibility of development a railroad “quiet zone” in downtown, which would prohibit trains from sounding their horns.
- **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-P13:** Ensure that new equipment and vehicles purchased by the City of Lodi are equipped with the best available noise reduction technology.
- **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 Noise Ordinance

Chapter 9.24 (Noise Regulation) of the City’s Municipal Code is designed to prohibit “public nuisance noise” which “disturb the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal noise sensitivity” through the establishment of standards that are used in consideration of whether a particular noise violation has occurred. These standards include, but are not limited to, the following:

- The volume of the noise;
- The intensity of the noise;
- Whether the nature of the noise is usual or unusual for the area and hour;
- Whether the origin of the noise is natural or unnatural;
- The volume and intensity of the background noise, if any;
- The proximity of the noise to residential sleeping facilities;

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- The nature and the zoning of the area within which the noise emanates;
- The density of the inhabitation of the area within which the noise emanates;
- The time of day or night the noise occurs;
- The duration of the noise;
- Whether the noise is produced by a commercial or noncommercial activity.

4.5.1.5 EXISTING CONDITIONS

Sensitive Receptors

Certain land uses, such as residences, schools, places of worship, and hospitals, are particularly sensitive to noise and vibration. Sensitive noise receptors include residences, senior housing, schools, places of worship, and recreational areas. These uses are regarded as sensitive because they are where citizens most frequently engage in activities which are likely to be disturbed by noise, such as reading, studying, sleeping, resting, working from home, or otherwise engaging in quiet or passive recreation. Commercial and industrial uses are not particularly sensitive to noise. However, nonresidential structures are still analyzed for potential vibration impacts, such as architectural damage to a structure due to construction or demolition activities in close proximity.

Traffic

As in most typical urbanized areas, the most pervasive noise sources in the City of Lodi come from motor vehicles, including automobiles, trucks, buses, and motorcycles. The noise levels generated from vehicles using roads in the proposed project area are affected primarily by the number of vehicles, type of vehicles (mix of automobiles, trucks, and other large vehicles), and their speed.

The existing traffic noise level contours and distances from the center of the roadways to the respective contours were computed using the FHWA Traffic Noise Prediction Model. The modeled traffic noise levels in the key affected area in the southeast portion of the city and in the General Plan Area, including Kettleman Lane, Beckman Road, Harney Lane, and Pixley Parkway, are based on traffic volumes provided by the project's traffic consultant and shown in Table 4.5-7, Existing Traffic Noise Levels. The highest noise levels are adjacent to larger and more heavily traveled roadways, such as Kettleman Lane. Noise levels that would affect noise sensitive land uses, such as residences, schools, and hospitals, also occur along major arterials, including Beckman Road, Pixley Parkway, and Harney Lane.

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TABLE 4.5-7 EXISTING TRAFFIC NOISE LEVELS

Roadway	Segment	CNEL (dBA at 50 ft)	Distance to CNEL Contour (Feet from Centerline)		
			70 (dBA CNEL)	65 (dBA CNEL)	60 (dBA CNEL)
Kettleman Lane	SR99 Northbound Ramp to Beckman Road	71	61	132	284
	Pixley Parkway to the west	70	47	101	217
Beckman Road	Kettleman Lane to the south	65	23	49	105
Harney Lane	SR99 Northbound Ramp to Beckman Road	65	23	50	108

Source: PlaceWorks 2024.

Railroad

Several factors combine to produce railroad noises, including length of train, speed, grade, type of track, number of engines, and number of trips. Railroad noise primarily occurs from existing operations along the Union Pacific Railroad (UPRR) line, which runs north-south to the east of the city. The noise level contours were estimated from the centerline of the railroad (Lodi 2010). At 60 feet from the railroad, the noise level is approximately 65 dBA. At 200 feet from the railroad, the noise level is approximately 60 dBA. Notably, these noise levels do not take into account potential shielding from existing buildings. Buildings could increase the rate of noise attenuation over distance, depending on the specific three-dimensional configuration and layout of the buildings.

Airport

The greatest potential for noise intrusion occurs when aircraft land, take off, or run their engines while on the ground. The noise associated with general aviation propeller aircraft (piston and turbo-prop) is produced primarily by the propellers and secondly by the engine and exhaust. Aircraft noise affecting the City's General Plan Area is primarily generated from the Kingdon and Lodi airparks. Both of these airparks lie outside the City's General Plan Area and are not considered substantial noise sources.

The Kingdon Airpark is about seven miles southwest of the city. This airpark is privately owned and accommodates small twin-engine airplanes and other small general aviation aircraft. Its primary use is for agricultural activities. The Lodi Airpark is five miles southwest of the city. The facility is owned by an agricultural service firm and accommodates only small light aircraft. Noise contours developed for these two airports report minimal noise impacts – less than 65 dBA outside of the airport boundary (SICOG 2009).

Industrial

Industrial uses are another source of noise that can have varying impacts on adjacent uses. A variety of mechanical equipment, generators, and vehicles all contribute to noise levels at industrial sites. Industrial uses are primarily along Stockton Street and east of SR-99 from E. Turner Road to Kettleman Lane.

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Construction

Construction can be another substantial, although typically short-term, source of noise. Construction is most disruptive when it takes place near sensitive land uses or occurs at night or in the early morning hours. The dominant construction equipment noise source is usually a diesel engine without sufficient muffling. In a few cases, such as impact pile driving or pavement breaking, process noise dominates.

Other Equipment

Several other portable or small-scale pieces of equipment may also produce noise effects. Mechanical equipment, such as pumps and fans may produce low noise levels, but continuously and for substantial distances. Rooftop or otherwise exposed mechanical equipment can also produce constant and disturbing noise. Portable power equipment, such as leaf blowers and drills, is ubiquitous in the modern city and can produce very high noise levels at the location of the work. Other amplified sounds, from automotive audio equipment or loud speakers, also create noise exposure.

4.5.2 STANDARDS OF SIGNIFICANCE

As the lead agency, the City has determined that a project would have a significant effect on the environment if it would:

- NOI-1 Result in 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 in other applicable local, state, or federal standards.
- NOI-2 Result in generation of excessive ground-borne vibration or ground borne noise levels.
- NOI-3 For a project in the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within 2 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.
- NOI-4 Result in cumulative noise impacts when combined with past, present, and reasonably foreseeable projects in the area.

4.5.3 PROPOSED GENERAL PLAN POLICIES

The following policies relevant to noise from the 2009 EIR would be modified under the proposed project and would help reduce potential noise impacts.

Noise Element

- **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.

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- **Policy N-P6:** Where substantial traffic noise increases (to above 70dBA) are expected, such as on Lower Sacramento Road or Harney Lane, require a minimum 12-foot setback for noise-sensitive land uses, such as residences, hospitals, schools, libraries, and rest homes.
- **Policy N-P7:** Require developers of potentially noise-generating new development to mitigate the noise impacts on adjacent properties as a condition of permit approval. This should be achieving 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 spaces, building orientation and design, landscaping and running water to mask sounds; and
 - Controlling hours of operation, including deliveries and trash pickup.
- **Policy N-P8:** Update Noise Ordinance regulations to address allowed days and hours of construction, types of work, construction equipment (including noise and distance thresholds), notification of neighbors, and sound attenuation devices.
- **Policy N-P10:** Encourage transit agencies and rail companies to develop and apply noise reduction technologies for their vehicles to reduce the noise and vibration impacts of bus and rail traffic.
- **Policy N-P11:** Coordinate with the California Public Utilities Commission and other pertinent agencies and stakeholders to determine the feasibility of development a railroad “quiet zone” in downtown, which would prohibit trains from sounding their horns.
- **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.
- **Policy N-P15: Policy N-P16:** In the Downtown Mixed Use district outdoor dining and entertainment uses shall be granted the following adjustments to the noise standards identified in Table 9-3:
 - If the ambient noise is already measured at levels identified in Table 9-3, allow an increase of 3 CNEL over existing noise levels.
 - As part of an approved land use, outside dining and entertainment may generate a 5 CNEL noise level over otherwise applicable standards until 10:00 p.m.

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4.5.4 ENVIRONMENTAL IMPACTS

4.5.4.1 METHODOLOGY

This section analyzes impacts related to short-term construction noise and vibration, as well as operational noise and vibration associated with the operational buildout of the proposed project.

Construction noise includes two main sources: construction-related traffic (worker, vendor, and haul truck trips) and construction equipment (associated with actual construction activities on-site). Construction noise modeling is conducted using the FHWA Roadway Construction Noise Model (RCNM) based on an anticipated equipment mix of the three loudest pieces of equipment for individual construction activities (FHWA 2006). The simultaneous use of the top three loudest pieces of equipment for each construction activity is modeled from the acoustical center of the construction site to the nearest sensitive receptor property line. Project vibration impacts are addressed using reference vibration levels for construction equipment published by FTA (FTA 2018).

The traffic noise levels were estimated using the FHWA Highway Traffic Noise Prediction Model (RD-77-108). The FHWA model determines a predicted noise level through a series of adjustments to a reference sound level. These adjustments account for traffic flows, speed, truck mix, varying distances from the roadway, length of exposed roadway, and noise shielding. Vehicle speeds on each roadway were assumed to be the posted speed limit, and no reduction in speed was assigned due to congested traffic flows. Current roadway characteristics, such as the number of lanes and speed limits, were determined from field observations and according to roadway classification. Traffic noise increases along study roadway segments were estimated using the average daily segment volumes provided by Fehr & Peers.

NOI-1	The project would potentially generate 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 in other applicable local, State, or federal standards.
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The 2009 EIR identified that implementation of the approved project could result in individual construction developments near noise-sensitive receptors and expose receptors to prolonged periods of construction activity. Policy N-P8 and N-P13 were identified to reduce construction noise to the extent feasible. However, construction noise impacts remained significant and unavoidable in the 2009 EIR. The 2009 EIR also identified that the approved project could result in a substantial permanent increase in ambient noise levels near noise-sensitive receptors and expose receptors to transportation and stationary noise increases. Policies N-P1 through N-P10 and Policy N-P6 were identified to reduce transportation and stationary noise to the extent feasible. However, transportation and stationary noise impacts of the approved project remained significant and unavoidable in the 2009 EIR.

Future development in the City's General Plan Area will result in higher traffic volumes, more industrial and commercial noise sources, and a larger population, all of which will contribute to the noise environment in Lodi. Future noise impacts related to traffic, railroads, and stationary sources would remain significant and unavoidable, given the uncertainty as to whether future noise impacts could be

adequately mitigated for all the individual projects that will be implemented as part of the proposed project.

Operational – On-Road Mobile Sources

Potential impacts on existing land uses would occur as a result of additional on-road mobile sources (vehicles) traveling along local roadways. Table 4.5-8, *General Plan 2025 Update Traffic Noise Level Increases*, identifies the various routes for which traffic data was generated using a spreadsheet based upon algorithms from the FHWA's Highway Traffic Noise Prediction Model and the traffic volumes prepared for the proposed project. The most substantial increase is along Harney Lane (1 dBA). However, the actual level of impact would depend on the presence and location of any existing or proposed land uses or barriers in relation to the noise source. While an increase of three or more dBA is considered potentially significant, it is only significant if it affects sensitive land uses.

TABLE 4.5-8 GENERAL PLAN 2025 UPDATE TRAFFIC NOISE LEVEL INCREASES

Roadway	Segment	Existing	Cumulative Year plus Existing General Plan	Cumulative Year plus Project	Increase over Existing	Increase over Cumulative plus Existing General Plan
Kettleman Lane	SR-99 Northbound Ramp to Beckman Road	71	75	74	3	-1
	Pixley Parkway to the west	70	73	72	2	-1
Beckman Road	Kettleman Lane to the south	65	70	67	2	-3
Harney Lane	SR-99 Northbound Ramp to Beckman Road	65	71	72	7	1
Pixley Parkway	Kettleman Lane to the south	N/A	65	65	N/A	0
	Harney Lane to the north	N/A	64	64	N/A	0

Note: N/A = Traffic data under this scenario are not available.
Source: PlaceWorks 2024.

Based on the modeled results shown in Table 4.5-8, traffic noise levels along these key affected roadways would have the following changes:

- Traffic noise levels under the Cumulative plus Project would increase by 2 to 7 dBA over the existing traffic noise levels,
- Traffic noise levels under the Cumulative plus Project would either increase by 1 dBA or lower by 1 to 3 dBA over the traffic noise levels under the Cumulative with the Existing General Plan scenario.

Traffic noise level increases between Existing conditions and the Cumulative plus Project scenario include growth from citywide development, as well as potentially affected by growth in areas outside the City boundary but adjacent to the City. Traffic noise level changes between the Cumulative with the Existing General Plan and the Cumulative plus Project scenarios would be primarily from the implementation of the proposed project. The City's General Plan Policies would reduce traffic noise impacts including Policy N-P6 which requires a minimum 12-foot setback for noise-sensitive uses where traffic noise level increases above 70 dBA, Policy N-P10 encourages transit companies to apply noise reduction technologies, and Policy N-P9 requires the implementation of noise reduction measures during City street improvements, extensions or

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design changes to further reduce traffic noise. The changes would range from an increase of 1 dBA to a decrease of 1 to 3 dBA. Based on these changes, implementation of the proposed project would not result in any significant traffic noise impacts.

Operational – Railroad Sources

Railroad noise primarily occurs from existing operations along the UPRR line, which runs north-south through the City. Because of the uncertainties associated with future operational details, no comprehensive noise predictions are included in this analysis. However, the development of the proposed project could locate residential land uses in the vicinity of the UPRR (or other railroad) corridor, which could result in the exposure of sensitive receptors to noise levels that exceed City standards. The actual level of impact would depend on the presence and location of any existing or proposed sensitive land uses in relation to the noise source. While an increase of three or more dBA is considered potentially significant, it is only significant if it affects sensitive land uses. In addition, the City's General Plan Policy N-P10 encourages rail companies to apply noise reduction technologies and Policy N-P11 considers the establishment of "Quiet Zones" to minimize noise impacts on a variety of sensitive land uses. Adherence to these policies would result in less than significant impacts regarding noise from railroad sources.

Operational – Stationary Sources (Industrial and/or Commercial)

The siting of new stationary noise sources associated with industrial and commercial uses may increase noise levels in their proximity. Primary stationary noise sources would be from landscaping, maintenance activities, air handling units, and loading and unloading activities, continual presence of heavy trucks used for the distribution of goods and supplies; or from the use of equipment in the manufacturing process or on the site to transport goods (such as forklifts). Potential areas of land use-noise conflict could occur at the boundaries of these industrial or commercial areas with other sensitive land uses (i.e., residential, schools, etc.) or along roadways leading to these industrial/commercial areas. Policies included in the General Plan have been developed to guide the analysis and mitigation of future project-related noise issues. The City's General Plan Policy N-P1 requires migration at the source, Policy N-P2 encourages noise control through project site design, and Policy N-P7 requires developers to dampen noise sources, increase setbacks of noise sources adjacent to sensitive uses, screening of noise sources (such as, parking lots, loading facilities, outdoor activities, or mechanical equipment), using open spaces, building orientation, and sound masking features. However, even with the implementation of these policies, this impact is considered potentially significant.

Operational – Downtown

Mixed Use development and planned outdoor activities in the downtown have the potential to increase ambient noise and single event noise (i.e. festivals, concerts, plays, amplified music or announcements). While the downtown area is largely commercial, the intent is to allow for mixed use that could include housing where late night, or loud activities, could disrupt sleep patterns. Policy N-P15 supports future Downtown planning efforts by calling for a review of commercial and mixed-use noise standards to better accommodate outdoor dining and entertainment. This review should ensure a balance between promoting vibrant outdoor activity and protecting both existing and future noise-sensitive uses. Revisions may involve updates to the General Plan noise standards listed in Table 9-3 of the Noise Element. Policy N-P16 provides

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specific guidance for the Downtown Mixed Use district, allowing certain adjustments to these standards. If the ambient noise levels already meet or exceed those in Table 9-3, an increase of up to 3 CNEL over existing levels may be permitted. Furthermore, for approved land uses, outdoor dining and entertainment may exceed applicable noise standards by up to 5 CNEL until 10:00 p.m.. In general, new mixed-use buildings would likely have air conditioning that would allow windows be shut during the evening hours, which will help address some of the noise; however, it is likely that even with closed windows, noise from activities in the downtown will be heard and may result in sleep disturbance.

Construction

Construction-related noise is considered a short-term noise impact associated with demolition, site preparation, grading, and other construction-related activities. Two types of short-term noise impacts could occur during these construction-related activities. First, the transport of workers and the movement of materials to and from the construction site could incrementally increase noise levels along local access roads. The second source of noise would result from the physical activities (e.g., grading, etc.) associated with any construction-related activities. Construction is performed in various distinct steps, each with its mix of equipment, workers, and activities. Consequently, each step has its noise characteristics. However, despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Implementation of the proposed project would result in additional citywide residential and non-residential land use developments that have the potential to result in all of these types of construction-related noises at varying times and intensities throughout the planning period.

Table 4.5-9, *Typical Construction Phase Noise Levels*, shows typical exterior noise levels at various phases of commercial construction, and Table 4.5-10, *Typical Construction Noise Levels from Construction Equipment*, shows typical noise levels associated with various types of construction-related machinery.

TABLE 4.5-9 TYPICAL CONSTRUCTION PHASE NOISE LEVELS

Construction Phase	Noise Levels L_{eq} ¹
Ground Clearing	84
Excavation	89
Foundations	78
Erection	85
Finishing	89

¹ Average noise levels correspond to a distance of 50 feet from the noisiest place of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.

Source: U.S. EPA 1971.

TABLE 4.5-10 TYPICAL CONSTRUCTION NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Construction Equipment	Noise Levels L_{eq} ¹ (dBA at 50 feet)
Truck	88
Concrete Mixer (Truck)	85
Scraper	89
Jack Hammer	88
Dozer	85
Paver	89

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Construction Equipment	Noise Levels L_{eq}^1 (dBA at 50 feet)
Generator	81
Pile Driver (impact)	101
Loader	85
Grader	85
Backhoe	80

Source: FTA 2018.

Using estimates shown in Tables 4.5-9 and 4.5-10, combined construction noise for proposed project development could be up to 89 dBA L_{eq} when measured at a distance of 50 feet from the construction area. During later phases of building construction, noise levels typically are reduced from these values and the physical structures themselves may further break up line-of-sight noise propagation.

The City's General Plan Policy N-P8 states that it would update Noise Ordinance regulations to address allowed days and hours of construction, types of work, construction equipment (including noise and distance thresholds), notification of neighbors, and sound attenuation devices. In addition, General Plan Policy N-P13 ensures that new equipment and vehicles purchased by the City are equipped with the best available noise reduction technology. In summary, compliance with the General Plan policy to regulate construction noise through the City's Noise Ordinance cannot ensure that temporary noise impacts resulting from construction are less than significant.

Level of Significance Without Mitigation: Potentially Significant

Mitigation Measure:

As stated above, the City will implement a variety of policies designed to address noise issues. In addition, the City will ensure that future CEQA documentation is prepared for individual projects (with project-specific data) that will (if technically possible) mitigate any potential noise impacts to a less-than-significant level. However, it should be noted, the ability to mitigate this potential impact is contingent on a variety of factors, including the severity of the noise impact, existing land use conditions and the technical feasibility of being able to implement any proposed mitigation measures. Given the uncertainty as to whether future noise impacts could be adequately mitigated for all the individual projects that will be implemented as part of the proposed project, this impact remains significant and unavoidable. No additional mitigation is currently available.

Level of Significance With Mitigation: Significant and Unavoidable.

NOI-2 **The project would not result in generation of excessive groundborne vibration or groundborne noise levels.**

The 2009 EIR identified that implementation of the approved project could potentially expose more people to groundborne vibration impacts near noise-sensitive receptors due to increased residential or employment densities on lands within proximity to vibration-generating activities (such as railroad lines, industrial uses, etc.). Policies N-P9, N-P10, and N-P14 were identified to reduce vibration levels to the extent feasible. Vibration impacts of the approved project were considered less than significant in the 2009 EIR. For

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construction near historic structures or buildings that house equipment that is sensitive to vibration effect, construction contractors should provide a plan that details construction activity, equipment involved, and approach to avoid or minimize any potential vibration impacts to the operations of the existing buildings or structural damages to the historic buildings.

The proposed project does not have any known plans or events that would generate excessive ground borne vibration or ground borne noise. Future developments as a result of the proposed project will have to comply with the City's regulatory requirements included in the General Plan and Municipal Code. The City's General Plan Policy N-P14 would reduce vibration impacts on noise-sensitive land uses (such as residences, hospitals, schools, libraries, and rest homes) adjacent to the railroad, State Route 99, expressways, and near noise-generating industrial uses through site planning, setbacks, and vibration-reduction construction methods such as insulation, soundproofing, staggered studs, double drywall layers, and double walls. No significant impacts would occur from the generation of ground borne vibration or ground borne noise. No mitigation is necessary.

Level of Significance Without Mitigation: Less than significant.

NOI-3	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 2 miles of a public airport or public use airport, the project would not expose people residing or working in the City's Plan to excessive noise levels.
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The 2009 EIR established that new development included in the proposed General Plan would not be in the vicinity (nor specifically, within the 65 dBA CNEL noise contours) and therefore would not expose persons to substantial aircraft noise. Aircraft noise impacts were not an issue and were not described further in the 2009 EIR.

The greatest potential for noise intrusion occurs when aircraft land, take off, or run their engines while on the ground. The noise associated with general aviation propeller aircraft (piston and turbo-prop) is produced primarily by the propellers and secondly by the engine and exhaust. Aircraft noise affecting the City's Plan Area is primarily generated from the Kingdon and Lodi airparks to the southwest and northeast of the Plan Area, respectively. Both of these airparks lie outside the urban area and are not considered substantial noise sources. The Kingdon Airpark is located about seven miles southwest of the City. This airpark is privately owned and accommodates small twin-engine airplanes and other small general aviation aircraft. Its primary use is for agricultural activities. The Lodi Airpark is located five miles southwest of the City and approximately 2,000 feet from the sphere of influence area. The facility is owned by an agricultural service firm and accommodates only small light aircraft. Noise contours developed for these two airports report minimal noise impacts – less than 65 dBA outside of the airport boundary.

Level of Significance Without Mitigation: Less than significant.

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4.5.5 CUMULATIVE IMPACTS

NOI-4	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative noise impacts in the area.
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As shown in Table 4.5-8, traffic noise levels under the Cumulative plus Project scenario would result in at most an increase of 1 dBA along Harney Lane and decreases in traffic noise levels from 1 to 3 dBA along other key affected roadway segments (Kettleman Lane, Beckman Road, and Pixley Parkway). Therefore, no cumulative traffic noise would occur as a result of the proposed project.

Similarly, the proposed project is not expected to measurably increase railroad traffic or the aircraft activity, therefore, no significant cumulative noise impacts would occur under those categories.

Increases in industrial and/or commercial uses within the City's Plan Area, would be required to comply with the City's regulatory requirements within its General Plan and the Municipal Code would ensure that no significant noise impacts would occur. Therefore, no significant cumulative noise impacts would occur as a result of the proposed project. No mitigation measure is required.

Level of Significance Without Mitigation: Less than significant.

4.5.6 REFERENCES

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NOISE

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POPULATION AND HOUSING

4.6 POPULATION AND HOUSING

This section examines the potential impacts of the proposed project on the City of Lodi, including changes in population, employment, and demand for housing, particularly housing cost or rent ranges defined as “affordable.”

4.6.1 ENVIRONMENTAL SETTING

4.6.1.1 REGULATORY FRAMEWORK

State Regulations

California Housing Element Law

California planning and zoning law requires each City and County to adopt a General Plan for future growth (California Government Code Section 65300). This plan must include a Housing Element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need. At the state level, the California Department of Housing and Community Development (HCD) estimates the relative share of California’s projected population growth that would occur in each county based on California Department of Finance (DOF) population projections and historical growth trends. These figures are compiled by HCD in a Regional Housing Needs Allocation (RHNA) for each region of California. Where there is a regional Council of Governments, HCD provides the RHNA to the council. The council then assigns a share of the regional housing need to each of its cities and counties. The process of assigning shares allows cities and counties to comment on the proposed allocations. HCD oversees the process to ensure that the Council of Governments distributes its share of the state’s projected housing needs.

State law recognizes the vital role local governments play in the supply and affordability of housing. To that end, the California Government Code requires that the Housing Element achieve the following goals:

- Identify actions that will be taken to make sites available during the planning period with appropriate zoning and development standards and with services and facilities to accommodate that portion of the City’s or County’s share of the regional housing need for each income level that could not be accommodated on sites identified in the inventory completed.
- Assist in the development of adequate housing to meet the needs of extremely low-, very low-, low-, and moderate-income households.
- Address and, where appropriate and legally possible, remove governmental and nongovernmental constraints to the maintenance, improvement, and development of housing, including housing for all income levels and housing for people with disabilities.
- Conserve and improve the condition of the existing affordable housing stock, which may include addressing ways to mitigate the loss of dwelling units demolished by public or private action.
- Promote and affirmatively further fair housing opportunities and promote housing throughout the community or communities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, disability, and other characteristics protected by the California Fair

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Employment and Housing Act, Section 65008, Part 2.8 (commencing with Section 12900) of Division 3 of Title 2, and any other state and federal fair housing and planning law.

- Preserve assisted housing developments for lower-income households.
- Develop a plan that incentivizes and promotes the creation of accessory dwelling units that can be offered at affordable rent for very low-, low-, or moderate-income households.
- Include an identification of the agencies and officials responsible for the implementation of the various actions and how consistency will be achieved with other General Plan elements and community goals.
- Include a diligent effort by the local government to achieve public participation from all economic segments of the community in the development of the Housing Element, and describe this effort.
- Affirmatively further fair housing by Chapter 15 (commencing with Section 8899.50) of Division 1 of Title 2 (California Government Code Section 65583).

California Housing Element laws (Government Code Sections 65580 to 65589) require that each City and County identify and analyze existing and projected housing needs in its jurisdiction and prepare goals, policies, and programs to further the development, improvement, and preservation of housing for all economic segments of the community, commensurate with local housing needs.

Housing Accountability Act

The Housing Accountability Act (HAA) requires that cities approve applications for residential development that are consistent with a City's General Plan and zoning code development standards without reducing the proposed density (California Government Code Section 65589.5). Under the HAA, an applicant is entitled to the full density allowed by the zoning and/or General Plan provided the project complies with all objective General Plan, zoning, and subdivision standards and provided that the full density proposed does not result in a specific, adverse impact on public health and safety and cannot be mitigated in any other way. Objective standards are measurable and have clear criteria that are determined in advance, such as numerical setbacks, height limit, universal design, lot coverage requirement, or parking requirements.

Amendment to the Housing Accountability Act

Assembly Bill (AB) 678 of 2017 amends California Government Code Section 65589.5 of the HAA by increasing the documentation and standard of proof required for a local agency to legally defend its denial of low- to moderate-income housing development projects. If the local agency considers the housing development project to be inconsistent, not in compliance, or not in conformity with objective, written applicable standards, ordinances, plans, policies, or programs, AB 678 requires that, within a specific period, the local agency shall provide the applicant with written documentation of its reasons. If the local agency fails to provide this, AB 678 deems the housing development project consistent, compliant, and in conformity with the applicable plan, program, policy, ordinance, standard, requirement, or other provision.

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AB 1515, Reasonable Person Standard

AB 1515 of 2017 made amendments to the California Government Code Section 65589.5 of the HAA. It specifies that a housing development project is deemed consistent, compliant, and in conformity with an applicable plan, program, policy, ordinance, standard, requirement, or similar provision if there is substantial evidence that would allow a reasonable person to conclude that the housing development project or emergency shelter is consistent, compliant, or in conformity.

Senate Bill 330, Housing Crisis Act of 2019

Among other changes that promote housing, the Housing Crisis Act of 2019 made amendments to the California Government Code Section 65589.5 of the HAA, which states that a housing development project that complies with the objective standards of the General Plan and Zoning Ordinance must be approved by the City unless the City can make written findings based on the preponderance of evidence in the record that either: (1) the City has already met its RHNA requirement; (2) there is an impact to the public health and safety and this impact cannot be mitigated; (3) the property is agricultural land; (4) approval of the project would violate State or federal law and this violation cannot be mitigated; or (5) the project is inconsistent with the zoning and land use designation and not identified in the General Plan Housing Element RHNA inventory.

Regional Regulations

San Joaquin Council of Governments

The San Joaquin Council of Governments (SJCOG) is the planning, financing, and coordinating agency for the San Joaquin region overseeing transportation, housing, and habitat conservation. SJCOG is a joint-powers authority made up of representatives from San Joaquin County and the cities of Stockton, Lodi, Manteca, Tracy, Ripon, Escalon, and Lathrop. SJCOG's broad range of responsibilities includes managing the Measure K transportation sales tax program, collecting county demographic and economic data, airport land use planning, and regional air quality. SJCOG partners with a network of local governments, private organizations, and community groups to deliver a variety of local, State, and federal programs that support the streets, roads, highways, public transit, and other transportation resources that help residents get where they need to be. It is also responsible for assigning each city and county its fair share of affordable housing (SJCOG 2023a).

2022 Regional Transportation Plan/Sustainable Communities Strategy

The 2022 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) for the San Joaquin Valley region proactively links land use, air quality, and transportation needs. The RTP/SCS is federally required to be updated every four years. The SJCOG board adopted the 2022 RTP/SCS and accompanying documents at a special board meeting on August 25, 2022. The 2022 RTP/SCS aims to incorporate policies that create mixed-use neighborhoods and thus spur multifamily housing development and increase overall population and housing (SJCOG 2023b).

POPULATION AND HOUSING

Local Regulations

City of Lodi Municipal Code

Chapter 15.32 – Community Housing Project Conversions

This chapter aims to establish the criteria for converting existing multifamily rental housing to condominiums, community apartments, or stock cooperatives. This chapter aims to reduce the impact on residents who may need to relocate, provide notifications for relocation, ensure purchasers are informed about the structure's physical condition, and ensure a high degree of appearance, quality, and safety, and alignment with City goals.

Section 17.36.050 – Residential Density Bonus

The residential density bonus provisions of the Lodi Municipal Code are adopted pursuant to the provisions of California Government Code Sections 65915 through 65918. The purpose of adopting this section is to encourage affordable housing by providing the incentive of increased density and other incentives provided by this section.

City of Lodi General Plan

The City of Lodi General Plan's Land Use Element and the adopted 2023-2031 Housing Element (Lodi 2024) includes the following policies on population and housing.

Land Use Element

- **Policy LU-P4:** Maintain the highest development intensities downtown, and in mixed-use corridors and centers, with adequate transition to Low-Density Residential neighborhoods.
- **Policy LU-P18:** Encourage medium- and high-density residential development in downtown by permitting residential uses at upper levels; and east and northwest of downtown, as depicted on the Land Use Diagram, by identifying vacant and underutilized sites that are appropriate for redevelopment.
- **Policy LU-P27:** Provide for a full range of housing types within new neighborhoods, including minimum requirements for small-lot single-family homes, townhouses, duplexes, triplexes, and multi-family housing.

Housing Element

- **Policy H-P1.1:** Promote the development of a broad mix of housing types through the following mix of residential densities as described in Policy GM-P4 of the Growth Management and Infrastructure Element.
- **Policy H-P1.2:** Regulate the number of housing units approved each year to maintain a population-based annual residential growth rate of two percent, consistent with the recommendations of the Mayor's Task Force and the Growth Management Allocation Ordinance.

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- **Policy H-P1.3:** Facilitate and encourage the development of senior and other special needs housing near, and/or with convenient public transportation access to, neighborhood centers, governmental services, and commercial service centers.
- **Policy H-P1.4:** Maintain and regularly update the City's land use database to monitor vacant residential land supply.
- **Policy H-P1.5:** Pursue available and appropriate state and federal funding programs and collaborate with nonprofit organizations to develop affordable housing.
- **Policy H-P1.6:** Promote the expeditious processing and approval of residential projects that conform to General Plan policies and City regulatory requirements.
- **Policy H-P1.7:** Reduce the cost impact of City policies, regulations, and permit procedures on the production of housing, while assuring the attainment of other City objectives.
- **Policy H-P1.8:** Intersperse extremely low-, very low-, and low-income housing units within new residential developments and ensure that such housing is visually indistinguishable from market-rate units.
- **Policy H-P2.1:** Encourage private reinvestment in older residential neighborhoods and private rehabilitation of housing.
- **Policy H-P2.2:** Use available and appropriate state and federal funding programs and collaborate with nonprofit organizations to rehabilitate housing and improve older neighborhoods.
- **Policy H-P2.3:** Give housing rehabilitation efforts high priority in the use of available grant funds, especially in the Eastside area.
- **Policy H-P2.4:** Support the revitalization of older neighborhoods by keeping streets and other municipal systems in good repair.
- **Policy H-P3.2:** Ensure that new residential development pays its fair share in financing public facilities and services and pursues financial assistance techniques to reduce the cost impact on the production of affordable housing.
- **Policy H-P4.1:** Seek to address the special housing needs of persons with disabilities, with lower incomes, large families, seniors, single-parent households, farmworkers, and persons in need of temporary shelter.
- **Policy H-P4.3:** Work with surrounding jurisdictions to address the needs of the homeless on a regional basis.
- **Policy H-P4.5:** Promote fair housing programs and services to residents and property owners in Lodi.

4.6.1.2 EXISTING CONDITIONS

Population

Table 4.6-1, *Population Trends in the City of Lodi and San Joaquin County*, indicates the population growth in the City of Lodi and San Joaquin County from 2013 to 2024. As shown in the table, Lodi grew at an average annual rate of 0.54 percent, and the county at an average annual rate of 1.21 percent.

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TABLE 4.6-1 POPULATION TRENDS IN THE CITY OF LODI AND SAN JOAQUIN COUNTY

Year	City of Lodi		San Joaquin County	
	Population	Percentage Change	Population	Percentage Change
2013	62,703	N/A	693,177	N/A
2014	63,158	0.72%	701,050	1.14%
2015	63,589	0.68%	708,554	1.07%
2016	63,842	0.39%	714,860	0.89%
2017	64,403	0.88%	724,153	1.30%
2018	65,006	0.94%	732,212	1.11%
2019	65,846	1.29%	742,603	1.42%
2020	66,562	1.09%	751,615	1.21%
2021	66,107	-0.68%	771,406	2.63%
2022	66,509	0.61%	779,445	1.04%
2023	66,293	-0.32%	786,145	0.86%
2024	66,495	0.30%	791,408	0.67%

Sources: US Census Bureau 2023a; DOF 2024.

Housing

As shown in Table 4.6-2, *Housing Trends in the City of Lodi and San Joaquin County*, the city's number of housing units grew by approximately 9.2 percent from 2013 to 2024; this growth was less than the county-wide average of 14.46 percent for the same period. As of 2024, the average household size in the City of Lodi is 2.65 persons per household, while San Joaquin County's is 3.05 persons per household (DOF 2024).

TABLE 4.6-2 HOUSING TRENDS IN THE CITY OF LODI AND SAN JOAQUIN COUNTY

Year	City of Lodi		San Joaquin County	
	Housing Units	Percentage Change	Housing Units	Percentage Change
2013	23,606	N/A	234,622	N/A
2014	23,557	-0.21%	235,610	0.42%
2015	23,955	1.69%	236,562	0.40%
2016	23,813	-0.59%	237,752	0.50%
2017	23,760	-0.22%	239,253	0.63%
2018	24,033	1.15%	241,055	0.75%
2019	24,383	1.46%	243,260	0.91%
2020	24,190	-0.79%	245,192	0.79%
2021	23,832	-1.48%	249,018	1.56%
2022	24,294	-1.94%	252,327	1.33%
2023	25,647	5.57%	262,955	4.21%
2024	25,777	0.51%	268,558	2.13%

Sources: US Census Bureau 2023b; DOF 2024.

SJCOG calculates the RHNA for jurisdictions in San Joaquin County, including Lodi. Table 4.6-3, *Lodi Regional Housing Needs Allocation*, shows the RHNA for the 2023-2031 planning period, which is the number of housing units the City of Lodi would need to accommodate by 2031.

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TABLE 4.6-3 LODI REGIONAL HOUSING NEEDS ALLOCATION

Income Category (% of County Area Median Income)	Number of Units	Percentage
Very Low Income	916	23%
Low Income	617	16%
Moderate Income	753	19%
Above Moderate Income	1,623	42%
Total	3,909	100%

Source: SJCOG 2022a.

Employment and Jobs

Employment Trends

According to the California Employment Development Department, the growth rate of employment in the City of Lodi has increased by 17.7 percent from 2013 to 2023, while the County of San Joaquin's employment has increased by 18.9 percent. The City of Lodi and San Joaquin County employment and annual employment change percentages are shown in Table 4.6-4, *City of Lodi and San Joaquin County Employment Trends*.

TABLE 4.6-4 CITY OF LODI AND SAN JOAQUIN COUNTY EMPLOYMENT TRENDS

Year	City of Lodi		San Joaquin County	
	Employment (Persons)	Percentage Change	Employment (Persons)	Percentage Change
2013	25,300	N/A	273,300	N/A
2014	25,700	1.6%	278,300	1.8%
2015	26,300	2.3%	286,300	2.8%
2016	26,600	1.1%	292,400	2.1%
2017	27,400	3.0%	300,200	2.7%
2018	27,900	1.8%	304,300	1.4%
2019	28,100	0.7%	307,100	0.9%
2020	27,100	-3.6%	296,300	-3.5%
2021	28,100	3.7%	307,300	3.7%
2022	29,700	5.7%	323,900	5.4%
2023	29,800	0.3%	325,100	0.4%

Source: EDD 2024.

Existing Jobs

Table 4.6-5, *City of Lodi Industry by Occupation (2011 and 2021)*, shows the total number of jobs per industry in Lodi in 2011 and 2021. According to the estimates calculated by the US Census Bureau, the City of Lodi had 16,636 jobs in 2011 and 18,983 jobs in 2021. The three largest occupational categories in 2011 were healthcare and social assistance, retail trade, and manufacturing, and in 2021 the three largest occupational categories were also healthcare and social assistance, retail trade, and manufacturing (US Census Bureau 2021).

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TABLE 4.6-5 CITY OF LODI INDUSTRY BY OCCUPATION (2011 AND 2021)

Industry/Occupation	Number of Jobs in 2011	Percentage	Number of Jobs in 2021	Percentage
Retail Trade	2,623	16%	3,433	18%
Health Care and Social Assistance	2,794	17%	2,922	15%
Manufacturing	2,348	14%	2,266	12%
Accommodation and Food Services	1,561	9%	2,087	11%
Finance and Insurance	1,421	9%	1,660	9%
Construction	798	5%	1,539	8%
Agriculture, Forestry, Fishing and Hunting	655	4%	793	4%
Transportation and Warehousing	810	5%	768	4%
Administration & Support, Waste Management and Remediation	565	3%	711	4%
Management of Companies and Enterprises	501	3%	628	3%
Other Services (excluding Public Administration)	854	5%	620	3%
Professional, Scientific, and Technical Services	529	3%	450	2%
Wholesale Trade	415	2%	409	2%
Real Estate and Rental and Leasing	320	2%	290	2%
Educational Services	30	0%	198	1%
Arts, Entertainment, and Recreation	111	1%	136	1%
Information	231	1%	73	0%
Utilities	70	0%	0	0%
Mining, Quarrying, and Oil and Gas Extraction	0	0%	0	0%
Public Administration	0	0%	0	0%
Total	16,636	100%	18,983	100%

Source: US Census 2021.

Growth Projections

San Joaquin Council of Governments

SJCOG undertakes comprehensive regional planning with an emphasis on transportation, producing an RTP/SCS that provides projections of population, households, and total employment for both the Lodi Census County Divisions (CCD) and San Joaquin County. CCDs are a geographic classification used to identify population and employment activity for unincorporated areas that are adjacent to and integrated with a neighboring city (SJCOG 2020). These projections are summarized in Table 4.6-6, *SJCOG Growth Projections for the Lodi CCD and San Joaquin County*.

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TABLE 4.6-6 SJCOG GROWTH PROJECTIONS FOR THE LODI CCD AND SAN JOAQUIN COUNTY

	Lodi CCD				San Joaquin County			
	2020	2025	2040	2045	2020	2025	2040	2045
Population	89,204	94,375	102,065	103,846	773,581	833,757	951,985	987,241
Households	30,545	32,474	34,948	35,542	239,143	258,347	292,147	302,229
Housing Units ¹	29,017	30,850	33,200	33,765	227,186	245,429	277,540	287,118
Employment	43,548	47,503	50,342	51,816	330,919	370,765	397,902	411,747
Jobs-Housing Ratio	1.50	1.54	1.52	1.53	1.45	1.51	1.43	1.43

Source: SJCOG 2022b.

¹ Housing units in SJCOG projections are based on number of households and a vacancy rate of 5 percent.

Jobs-Housing Ratio

The jobs-housing ratio is a general measure of the number of jobs versus housing in a defined geographic area, without regard to economic constraints or individual preferences. The jobs-housing ratio, as well as the type of jobs versus the price of housing, has implications for mobility, air quality, and the distribution of tax revenues. A project's effect on the jobs-housing ratio is one indicator of how it will affect growth and quality of life in the General Plan Area. A main focus of SJCOG's regional planning efforts has been to improve this balance; however, job-housing goals and ratios are only advisory. There is no ideal jobs-housing ratio adopted in State, regional, or City policies. The American Planning Association is an authoritative resource for community planning best practices, including recommendations for assessing job-housing ratios. Although it recognizes that an ideal jobs-housing ratio will vary across jurisdictions, it recommends a target of 1.5 and a range of 1.3 to 1.7 (Weitz 2003).

As shown in Table 4.6-6, Lodi CDD is projected to be jobs-rich, since the jobs-housing ratio of 1.53 in 2045 is within the recommended range of 1.3 to 1.7.

4.6.2 STANDARDS OF SIGNIFICANCE

As the lead agency, the City of Lodi has determined that a project would have a significant effect on the environment if it would:

- P-1 Induce substantial unplanned population growth or growth for which inadequate planning has occurred, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- P-2 Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

POPULATION AND HOUSING

4.6.3 PROPOSED GENERAL PLAN POLICIES

The following goals, policies, and actions from the proposed General Plan apply to population and housing.

4.6.3.1 GROWTH MANAGEMENT AND INFRASTRUCTURE

- **Policy GM-G1:** Ensure contiguous, paced, and orderly growth by identifying phases for development. Allow development in subsequent phases only once thresholds of reasonable development in prior phases have been achieved.
- **Policy GM-P2:** Target new growth into identified areas, extending south, west, and southeast. Ensure contiguous development by requiring development to conform to phasing described in Figure 3-1. Enforce phasing through permitting and infrastructure provision. Development may not extend to Phase 2 until Phase 1 has reached 75% of development potential (measured in acres) and development may not extend to Phase 3 until Phase 2 has reached 75% of development potential. In order to respond to market changes in the demand for various land use types, exemptions may be made to allow for development in future phases before these thresholds in the previous phase have been reached.
- **Policy GM-P3:** Use the Growth Management Allocation Ordinance as a mechanism to even out the pace, diversity, and direction of growth. Update the Growth Management Allocation Ordinance to reflect phasing and desired housing mix. Because unused allocations for any given year carry over, the Growth Management Allocation Ordinance will not restrict growth, but simply even out any market extremes.

4.6.4 ENVIRONMENTAL IMPACTS

POP-1	The proposed project would not result in substantial unplanned growth in comparison to the 2009 General Plan EIR. [Threshold P-1]
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Table 4.6-7, *Comparison of 2045 SJCOG and General Plan Update Planning Horizon Projections*, shows the existing conditions in the General Plan Area, approved project, SJCOG projections, and the General Plan Update projections for 2045.

TABLE 4.6-7 COMPARISON OF 2045 SJCOG AND GENERAL PLAN UPDATE PLANNING HORIZON PROJECTIONS

	Existing Conditions	Approved Project (2030)	SJCOG Projections (2045)	General Plan Update Buildout Projections (2045)
Population	66,328	99,500	103,846	82,186
Employment	25,400	50,300	51,816	30,120
Housing Units	25,511	37,200	33,765	31,610
Jobs-Housing Ratio	0.99	1.35	1.53	0.95

Sources: SJCOG 2022b; Lodi 2009.

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Population

The approved project projected the General Plan Area to have a population of 99,500 residents by the year 2030. Table 4.6-7 shows that the proposed project anticipates the total population for the General Plan Area to be 82,186 residents by 2045, while SJCOG projects the population to be around 103,846 by 2045. Since the proposed project's projected population is less than the projected population reported in the approved project and SJCOG's RTP/SCS, the impact of population growth from the proposed project would be less than significant.

Housing

The approved project projected the General Plan Area to result in 37,200 housing units by the year 2030. The proposed project would allow up to 31,610 housing units by 2045, which is 5,590 fewer housing units compared to the approved project and 2,155 fewer compared to SJOC housing unit projections. Since the total projected housing units in the proposed project would be less than the projected housing units analyzed in the approved project and SJOC's RTP/SCS, the impact of housing growth would be less than significant.

Employment

The approved project was projected to create 50,300 jobs in 2030, and the proposed project would create 30,120 jobs by 2045. The proposed project would result in 20,180 fewer jobs compared to the 2009 EIR. In addition, SJOC reports 51,816 jobs in 2045, approximately 21,696 fewer jobs compared to the proposed project. Therefore, the proposed project would not result in unplanned growth regarding jobs in the General Plan Area and the impact on employment would be less than significant.

Jobs-Housing Ratio

A project's effect on the jobs-housing balance is an indicator of how it will affect growth and quality of life in the project area. The approved project's and SJCOG's housing and employment assumptions would have resulted in a jobs-housing ratio of 1.35 and 1.53 jobs per dwelling unit, respectively. As shown in Table 4.6-7, the proposed project jobs-housing ratio would be 0.95. The proposed project would not result in new or substantially more severe significant impacts in unplanned growth for the jobs-housing ratio than were analyzed in the approved project nor reported in other planning documents such as SJCOG's RTP/SCS. Therefore, the impact of the proposed project on the jobs-housing ratio would be less than significant.

Summary

The proposed project would lead to a decrease in population, housing, and jobs compared to the approved project. In addition, the proposed project would include the following policies that would regulate growth:

- **Policy GM-G1:** Ensure contiguous, paced, and orderly growth by identifying phases for development. Allow development in subsequent phases only once thresholds of reasonable development in prior phases have been achieved.

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- **Policy GM-P2:** Target new growth into identified areas, extending south, west, and southeast. Ensure contiguous development by requiring development to conform to phasing described in Figure 3-1. Enforce phasing through permitting and infrastructure provision. Development may not extend to Phase 2 until Phase 1 has reached 75 percent of development potential (measured in acres) and development may not extend to Phase 3 until Phase 2 has reached 75 percent of development potential. To respond to market changes in the demand for various land use types, exemptions may be made to allow for development in future phases before these thresholds in the previous phase have been reached.
- **Policy GM-P3:** Use the Growth Management Allocation Ordinance as a mechanism to even out the pace, diversity, and direction of growth. Update the Growth Management Allocation Ordinance to reflect phasing and desired housing mix. Because unused allocations for any given year carry over, the Growth Management Allocation Ordinance will not restrict growth, but simply even out any market extremes.

The proposed project would result in a less-than-significant impact regarding inducing substantial unplanned population growth or growth for which inadequate planning has occurred.

Level of Significance Without Mitigation: Impact POP-1 would be less than significant.

POP-2	The proposed project would not displace substantial numbers of existing population or housing, necessitating the construction of replacement housing elsewhere. [Threshold P-2]
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Displacement is typically considered substantial in cases where major development, such as a freeway or a large-scale redevelopment, would result in the displacement of large amounts of existing housing, such that the construction of replacement housing is necessary.

The approved project states that it does not directly displace any housing units, businesses, or people. However, redevelopment of existing uses would likely occur, and the development would occur over time as the market demands. Implementation of the proposed project would not result in the need to redevelop existing homes and would not necessitate the construction of replacement housing. The proposed project would result in a decrease of 5,590 dwelling units compared to the approved project. In addition, the City's Municipal Code Chapter 15.32 outlines the criteria for converting multifamily rental housing into condominiums, community apartments, or stock cooperatives, aiming to minimize relocation impact on residents and provide relocation notifications. Therefore, the proposed project would not result in new or substantially more severe significant impacts related to potential displacement of housing and/or people in comparison to the approved project.

Level of Significance Without Mitigation: Impact POP-2 would be less than significant.

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4.6.5 CUMULATIVE IMPACTS

POP-3	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative population and housing impacts in the area.
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The geographic area considered for cumulative impacts is the General Plan Area. Population growth anticipated for implementation of the proposed project would decrease by 17,314 persons compared to the approved project. The proposed project would allow up to 31,610 housing units by 2045, which is 5,590 fewer housing units compared to the approved project. The approved project was projected to create 50,300 jobs in 2030, and the proposed project would create 30,120 jobs by 2045. The proposed project would result in a decrease in population, housing, and jobs compared to what was reported and analyzed in the approved project. Therefore, the proposed project would not result in impacts that could combine population and housing impacts in a way that would be cumulatively considerable; therefore, cumulative impacts would be less than significant.

Level of Significance Without Mitigation: Impact POP-3 would be less than significant.

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4.6.6 REFERENCES

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4.7 PUBLIC SERVICES

This section of the Draft Subsequent Environmental Impact Report (SEIR) addresses the impacts of the proposed project on public services, including fire protection and emergency services, police protection, school services, and library services in comparison to the approved project and impacts evaluated in the 2009 Certified EIR. Park services are addressed in Section 4.8, *Parks and Recreation*. Public and private utilities and service systems, including water, wastewater, and solid waste services and systems, are addressed in Section 4.10, *Utilities and Service Systems*.

4.7.1 FIRE PROTECTION AND EMERGENCY SERVICES

4.7.1.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

International Fire Code

The International Fire Code (IFC) is a model code for regulating minimum fire-safety requirements for new and existing buildings, facilities, storage, and processes. The IFC includes general and specialized technical fire- and life-safety regulations, with topics addressing fire-department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, use and storage of hazardous materials, protection of emergency responders, industrial processes, and various other topics. The IFC is issued by the International Code Council, which is an international organization of building officials.

Federal Fire Prevention Plans

- Fire prevention plans are required under OSHA Standard 1926.24. The purpose of the fire prevention plan is to prevent a fire from occurring in a workplace. It describes the fuel sources (hazardous or other materials) on-site that could initiate or contribute both to the spread of a fire. A fire prevention plan must be in writing, kept in the workplace, and made available to employees for review. However, an employer with 10 or fewer employees may communicate the plan orally to employees. At a minimum, a Fire Prevention Plan must include:
- A list of all major fire hazards, proper handling and storage procedures for hazardous materials, potential ignition sources and their control, and the type of fire protection equipment necessary to control each major hazard.
- Procedures to control accumulations of flammable and combustible waste materials.
- Procedures for regular maintenance of safeguards installed on heat-producing equipment to prevent the accidental ignition of combustible materials.
- The name or job title of employees responsible for maintaining equipment to prevent or control sources of ignition or fires.
- The name or job title of employees responsible for the control of fuel source hazards.

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State Regulations

California Building Code

The State of California provides a minimum standard for building design through Title 24 of the California Code of Regulations. The California Building Code (CBC) is located in Part 2 of Title 24. The City of Lodi adopted the 2022 CBC under the City of Lodi's Municipal Code Chapter 15.04, *Building Code*. Commercial and residential buildings are plan-checked by City building officials for compliance with the CBC. Typical fire safety requirements of the CBC include the establishment of fire resistance standards for fire doors, building materials, and particular types of construction, and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Fire Code

The 2007 California Fire Code (Title 24, Part 9 of the CCR) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the State of California (CBSC 2010). The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas. The 2022 California Fire Code, with local amendments, was adopted by the City of Lodi under the Municipal Code Chapter 15.20, *Fire Code*.

Regional Regulations

County of San Joaquin Emergency Operations Plan

San Joaquin County Emergency Operations Center (EOC) developed the Emergency Operations Plan (EOP) in accordance with federal and State guidelines to meet current standards. The San Joaquin County Operational Area consists of all the political subdivisions within the geographical boundaries of San Joaquin County including the City of Lodi. The EOP address San Joaquin's planned response to extraordinary emergency situations associated with all hazards such as natural disasters, technological emergencies, and acts of civil hostility. It is the principal guide for mitigating emergencies and disasters, ensuring the protection and health, safety and property of the public, and aiding in recovery operations for the agencies and jurisdictions that lie within (San Joaquin 2022).

Local Regulations

City of Lodi General Plan

The following policies are from the City's existing Growth Management and Infrastructure Element and Safety Element which pertain to fire services.

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Growth Management and Infrastructure Element

- **Policy GM-G4:** Provide public facilities-including police and fire service, schools, and libraries- commensurate with needs of existing and future population.
- **Policy GM-P26:** Develop a Fire and Police Services Master Plan that would establish thresholds and requirements for fire and police facilities, staffing, and building features. The Fire and Police Services Master Plan should consider the following:
 - Typical nature and type of calls for service;
 - Fire prevention and mitigation measures such as sprinklers, fire retardant materials, and alarms;
 - Appropriate measures for determining adequate levels of services; and
 - Locations and requirements for additional facilities and staffing.
- **Policy GM-P27:** Maintain sufficient fire and police personnel and facilities to ensure maintenance of acceptable levels of service. Provide needed facilities concurrent with phased development.

Safety Element

- **Policy S-P7:** Site critical emergency response facilities – such as hospitals, fire stations, police offices, substations, emergency operations centers and other emergency service facilities and utilities- to minimize exposure to flooding and other hazards.
- **Policy S-P24:** Coordinate with local, State, and Federal agencies to establish, maintain, and test a coordinated emergency response system that addresses a variety of hazardous and threatening situations. Conduct periodic emergency response exercises to test the effectiveness of City emergency response procedures. Develop and implement public information programs concerning disaster response and emergency preparedness and develop mutual aid agreements and communication links with surrounding communities for assistance during times of emergency.
- **Policy S-P27:** Maintain and periodically update the City’s Emergency Preparedness Plan, including review of County and State emergency response procedures that must be coordinated with City procedures.
- **Policy S-P29:** Continue to use the San Joaquin County Hazard Mitigation Plan to reduce hazard risk and coordinate with the County on its update and implementation, consistent with the Federal Emergency Management Agency and the Disaster Act of 2000.

City of Lodi Municipal Code

Chapter 2.32, Emergency Services, of the City of Lodi’s Municipal Code, outlines how the City will prepare and carry out plans for the protection of persons and property in the city in the event of an emergency. The chapter outlines the direction of the emergency organization, and the coordination of the emergency functions of the City with all other public agencies, corporations, organizations, and affected private persons. An emergency is defined as “the actual or threatened existence of conditions of disasters or extreme peril to the safety of persons and property in the city.”

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Chapter 15.20.010, Fire Code, in the City of Lodi's Municipal Code, adopts the 2022 California Fire Code. The California Fire Code regulates and governs the safeguarding of life and property from fire and explosion hazards arising from the storage, handling, and use of hazardous substances, materials, and devices. Furthermore, this chapter outlines the dimensions and surface requirements for Fire Apparatus Access Roads.

Chapter 15.64, Development Impact Mitigation Fees, from the City of Lodi's Municipal Code, requires new developments to pay their fair share of the construction costs for public services such as fire services.

Existing Conditions

Fire protection in Lodi is provided by the Lodi Fire Department (LFD). LFD provides emergency and non-emergency services, including fire suppression, emergency medical services, hazardous materials response, technical rescue, fire presentation, public education, and other related safety services. The City Emergency Operation Center serves as the center for all emergency operations (Lodi 2023a). Table 4.7-1, *Lodi Fire Department Fire Stations*, shows the location of the four stations in the city as well as their equipment. The LFD is composed of 51 personnel, including firefighters, company officers, and battalion chiefs (Lodi 2023a).

The fire department received a total of 7,521 calls in 2021, averaging 28.4 calls per day. The General Plan establishes a travel time goal of 3:00 minutes or less for emergency calls. The actual average response time in 2021 was 4.8 minutes, with drive times to the southwest and southeast corners of the City being 4.41 and 5.19 minutes, respectively (Lodi 2022) .

TABLE 4.7-1 Lodi Fire Department Fire Stations

Station	Location	Equipment
Fire Station 1	210 West Elm Street	Truck 2051, Engine 2031, Battalion Chief 1 2011, and a reserve engine
Fire Station 2	2 S Cherokee Lane	Engine 2032, State of California Office of Emergency Services (EOS) Engine 338, Hazmat 2081, USAR Trailer, Public Education Trailer, and Santa Fire Truck
Fire Station 3	2141 South Ham Lane	Engine 2033 and a reserve engine
Fire Station 4	North Lower Sacramento Fron Road	Engine 2034 and a reserve truck

Source: Lodi 2023.

4.7.1.2 STANDARDS OF SIGNIFICANCE

As lead agency, the City has determined that a project would have a significant effect on the environment if it would:

- FP-1 Result in a substantial adverse physical impact associated with the provisions 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 fire protection services.

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4.7.1.3 PROPOSED GENERAL PLAN POLICIES

The following policies from the proposed General Plan are applicable to fire protection services.

- **Policy GM-G4:** Provide public facilities, including police and fire service, schools, and libraries- commensurate with needs of existing and future population.
- **Policy GM-P26:** Develop a Fire and Police Services Master Plan that would establish thresholds and requirements for fire and police facilities, staffing, and building features. The Fire and Police Services Master Plan should consider the following:
 - Typical nature and type of calls for service;
 - Fire prevention and mitigation measures such as sprinklers, fire retardant materials, and alarms;
 - Appropriate measures for determining adequate levels of services; and
 - Locations and requirements for additional facilities and staffing.
- **Policy GM-P27:** Maintain sufficient fire and police personnel and facilities to ensure maintenance of acceptable levels of service. Provide needed facilities concurrent with phased development.

City of Lodi Municipal Code

Chapter 2.32, Emergency Services, of the City of Lodi's Municipal Code, outlines how the City will prepare and carry out plans for the protection of people and property in the city in the event of an emergency. The chapter outlines the direction of the emergency organization, and the coordination of the emergency functions of the City with all other public agencies, corporations, organizations, and affected private persons. An emergency is defined as the actual or threatened existence of conditions of disasters or of extreme peril to the safety of persons and property in the city.

Chapter 15.64, Development Impact Mitigation Fees states that the city council has determined that development impact mitigation fees are necessary to finance public improvements and cover the fair share of construction costs for new developments. These fees align with the city's general plan and consider the effects on the city's housing needs. The purpose of this chapter is to implement these requirements and impose mitigation fees to fund the cost of facilities that are directly or indirectly generated by the proposed new development. The fees for police, fire, parks, recreation, art in public places, and city facilities are impacted by any project that generates new or increased service demand.

4.7.1.4 ENVIRONMENTAL IMPACTS

PS-1	The proposed project would increase the population and structures in the Lodi Fire Department service boundaries, thereby increasing the need for fire protection facilities and personnel. [Threshold FP-1]
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The 2009 Certified EIR states that implementation of the approved project would generate approximately 26,400 new residents and 23,400 new jobs by 2030, which was analyzed to increase the long-term demand for emergency fire response. The 2009 Certified EIR states that the Lodi Fire Department had 59 personnel

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and four fire stations located throughout the city. The 2009 Certified EIRM states that a fifth Fire Station location was reserved as part of the approved Reynolds Ranch project located south of Harney Lane and west of SR-99; however, this fire station has not been constructed. The 2009 Certified EIR indicates that population growth will lead to increased call volume and complexity, which may necessitate mutual aid. The effectiveness of fire protection services for medical emergencies and fire suppression depends on these factors, influencing decisions about additional staffing. The Fire and Police Services Master Plan evaluates the need for more facilities and personnel, considering service call types, fire prevention strategies, service level assessments, and potential locations for new facilities.

The proposed project would generate approximately 15,858 new residents and 4,720 jobs by 2045. As mentioned in the 2009 Certified EIR, an increase in call volumes and complexity would indirectly influence decisions on additional staffing and facilities. Although the proposed project would result in fewer residents compared to the approved project, there may be areas that could become more populated than others, thus requiring additional staffing and facilities in that specific area. Therefore, the proposed project could still increase the demand for fire protection and emergency services, resulting in the construction of new fire protection facilities.

As mentioned in the 2009 Certified EIR, the approved project includes a fifth fire station located south of Harney Lane and west of SR-99. The proposed project will not alter the land use designation for this fire station, so the implementation of the General Plan Update will not hinder its construction. However, the proposed project would allow surrounding land use designations to shift to higher density residential, potentially increasing the population and subsequently creating a demand for additional personnel and facilities. Any physical impacts from future fire station development will be addressed at the appropriate time.

Chapter 15.64, Development Impact Mitigation Fees, from the City of Lodi's Municipal Code, requires new developments to pay their fair share of the construction costs for public services such as fire services. Therefore, the property owner of any development project causing an increase in fire services that would require additional fire facilities shall pay the appropriate development impact mitigation fee as provided in the chapter which would offset potential demand associated with future development.

The General Plan Update includes policies that ensure that fire services are adequate to meet future demand, such as Policy GM-G4 which states to provide fire service that commensurate with the needs of existing and future populations, and Policy GM-P27 which states to maintain sufficient fire personnel and facilities to ensure maintenance of acceptable levels of service and provide needed facilities concurrent with phased development. In addition, Policy GM-P26 outlines the development of a Fire and Police Services Master Plan, which will establish requirements for fire facilities, staffing, and building features. The plan should consider the nature of service calls, fire prevention measures, adequate service levels, and locations for additional facilities and staffing. These policies would ensure that Lodi fire services and emergency services would be provided due to the implementation of the General Plan Update.

Under the approved project, impacts were considered less than significant with the implementation of the existing General plan policies. The proposed policies in the General Plan Update would be similar to those in the existing General Plan. In addition, the proposed project would not result in new or substantially more severe significant impacts in this regard, when compared to the 2009 Certified EIR. Future development under the proposed project would need to comply with the City's Municipal Code regarding paying their

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fair share for the construction of fire facilities. Therefore, the proposed project would not result in physical impacts to the environment due to the construction or expansion of fire facilities.

Level of Significance Before Mitigation: Impact PS-1 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation: Impact PS-1 would be less than significant.

4.7.1.5 CUMULATIVE IMPACTS

PS-2	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative fire protection service impacts.
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The cumulative analysis considers growth from development under the proposed project within the City combined with the estimated growth in the service areas of each service provider. In the case of fire protection, this would be the service area of the LFD.

Compliance with State and local regulations described under Section 4.7.1.1, *Environmental Setting*, and the proposed General Plan policies listed in Impact PS-1, would ensure that the fire protection services are adequate to meet the demand and thus would not result in physical impacts due to the construction or expansion of fire facilities. Likewise, the Lodi General Plan Update has policies that encourage and maintain fire protection services.

Further, because the proposed project is program level, and because potential future development would be required to undergo project review at the time of project application, each potential future development would be assessed for impacts to fire protection services. With adequate planning in place and compliance with local and state regulations, the proposed project would not result in a cumulatively considerable impact on fire protection services, and cumulative impacts would be less than significant.

Significance Without Mitigation: Impact PS-2 would be less than significant.

4.7.2 POLICE PROTECTION

4.7.2.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal Regulations

There are no federal regulations about police protection that apply to the proposed project.

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State Regulations

Emergency Response/Evacuation Plans

Emergency Response/Evacuation Plans Government Code Section 8607(a) directs the California Emergency Management Agency (formerly the Governor's Office of Emergency Services) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. The program is intended to provide effective management of multi-agency and multijurisdictional emergencies in California. SEMS consists of five organizational levels, which are activated as necessary: (1) Field Response, (2) Local Government, (3) Operational Area, (4) Regional, and (5) State. Local governments must use SEMS to be eligible for funding of their response-related personnel costs under state disaster assistance programs. San Joaquin County has adopted an Emergency Operations Plan that is consistent with the SEMS.

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County of San Joaquin Emergency Operations Plan (EOP)

San Joaquin County Emergency Operations Center (EOC) developed the EOP in accordance with federal and state guidelines to meet current standards. The San Joaquin County Operational Area consists of all the political subdivisions within the geographical boundaries of San Joaquin County. The EOP addresses San Joaquin's planned response to extraordinary emergency situations associated with all hazards such as natural disasters, technological emergencies, and acts of civil hostility. It is the principal guide for mitigating emergencies and disasters, ensuring the protection and health, safety, and property of the public, and aiding in recovery operations for the agencies and jurisdictions that lie within (San Joaquin 2022).

Local Regulations

2010 City of Lodi General Plan

The following policies are from the City's existing General Plan's Growth Management and Infrastructure Element and Safety Element pertaining to police services.

Growth Management and Infrastructure Element Policies

- **Policy GM-G4:** Provide public facilities-including police and fire service, schools, and libraries- commensurate with needs of existing and future population.
- **Policy GM-P26:** Develop a Fire and Police Services Master Plan that would establish thresholds and requirements for fire and police facilities, staffing, and building features. The Fire and Police Services Master Plan should consider the following:
 - Typical nature and type of calls for service;
 - Fire prevention and mitigation measures such as sprinklers, fire retardant materials, and alarms;
 - Appropriate measures for determining adequate levels of services; and
 - Locations and requirements for additional facilities and staffing.

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- **Policy GM-P27:** Maintain sufficient fire and police personnel and facilities to ensure maintenance of acceptable levels of service. Provide needed facilities concurrent with phased development.

Safety Element

- **Policy S-P7:** Site critical emergency response facilities- such as hospitals, fire stations, police officers, substations, emergency operations centers and other emergency service facilities and utilities- to minimize exposure to flooding and other hazards.

City of Lodi Municipal Code

Chapter 2.32, Emergency Services, of the City of Lodi's Municipal Code, outlines how the City will prepare and carry out plans for the protection of people and property in the city in the event of an emergency. The chapter outlines the direction of the emergency organization, and the coordination of the emergency functions of the City with all other public agencies, corporations, organizations, and affected private persons. An emergency is defined as the actual or threatened existence of conditions of disasters or of extreme peril to the safety of people and property in the city.

Chapter 2.20, Police Auxiliary, of the City of Lodi's Municipal Code establishes the policy auxiliary as a voluntary organization composed of persons appointed by the chief of police. This chapter outlines the Chief of Police's authority over the police auxiliary, the qualifications to be a member of the auxiliary, the expansion or diminishment of the auxiliary, the duty, rules, and orders, and the authority of auxiliary.

Chapter 15.64, Development Impact Mitigation Fees, states that the City Council has determined that development impact mitigation fees are necessary to finance public improvements and cover the fair share of construction costs for new developments. These fees align with the City's General Plan and consider the effects on the city's housing needs. The purpose of this chapter is to implement these requirements and impose mitigation fees to fund the cost of facilities that are directly or indirectly generated by the proposed new development. The fees for police, fire, parks, recreation, art in public places, and city facilities are impacted by any project that generates new or increased service demand.

Existing Conditions

The Lodi Police Department (LPD) provides law enforcement and policing services to the citizens of Lodi. The LPD has 75 authorized sworn officers, 30 professional staff members, and 22 part-time employees. The Department has several divisions and units: Special Units, Animal Services, Operation Division, and Support Services (Lodi 2023b). Special Units consist of the Bomb Squad, Critical Incident Negotiations Team, Field Evidence Technicians, Honor Guard, K-9, SWAT, and Drone Team. The Operations Division consists of all uniform patrol services, including the Special Operations Division. Support Services consists of the Investigations Bureau (General Investigations Units and Special Investigations units) and the Technical Services Bureau (Animal Services, City Jail, Communications Center, Property and Evidence, and Records).

San Joaquin County is responsible for managing response and recovery operations in the unincorporated areas of the County with the cities providing support and mutual aid as needed (San Joaquin 2022).

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The Freeway Service Patrol (FSP) is a free service that provides motorist aid on major freeways in the San Joaquin region. FSP is managed by the San Joaquin Council of Governments (SJCOG), California Highway Patrol (CHP), and Caltrans. FSP works to reduce traffic and incidences by removing stranded motorists and their disabled vehicles from the freeway (SJCOG 2023).

4.7.2.2 STANDARDS OF SIGNIFICANCE

As lead agency, the City has determined that a project would have a significant effect on the environment if it would:

- PP-1 Result in a substantial adverse physical impact associated with the provisions 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 police protection services.

4.7.2.3 PROPOSED GENERAL PLAN POLICIES

The following policies from the proposed General Plan are applicable to police protection services.

- **Policy GM-G4:** Provide public facilities-including police and fire service, schools, and libraries- commensurate with needs of existing and future population.
- **Policy GM-P26:** Develop a Fire and Police Services Master Plan that would establish thresholds and requirements for fire and police facilities, staffing, and building features. The Fire and Police Services Master Plan should consider the following:
 - Typical nature and type of calls for service;
 - Fire prevention and mitigation measures such as sprinklers, fire retardant materials, and alarms;
 - Appropriate measures for determining adequate levels of services; and
 - Locations and requirements for additional facilities and staffing.
- **Policy GM-P27:** Maintain sufficient fire and police personnel and facilities to ensure maintenance of acceptable levels of service. Provide needed facilities concurrent with phased development.

4.7.2.4 ENVIRONMENTAL IMPACTS

PS-3	The proposed project would introduce new structures, residents, and workers into the Lodi Police Department service boundaries, thereby increasing the need for police protection facilities and personnel. [Threshold PP-1]
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The 2009 Certified EIR states that implementation of the approved project would generate approximately 26,400 new residents and 23,400 new jobs by 2030, which was analyzed to increase the long-term demand for police services. The 2009 Certified EIR states that the LPD had a total of 78 sworn officers with one police

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station and in the case of emergencies, the San Joaquin County Sheriff's Department was available to assist the LPD.

The proposed project would generate approximately 15,858 new residents and 4,720 jobs by 2045. As mentioned in the previous Existing Conditions section, the LPD currently has 75 sworn police officers with one police station. Although the proposed project's total population is estimated to be less than the approved project, the LPD has not made any development to expand its police services since the 2009 Certified EIR for the approved project. Therefore, the proposed project could still increase the demand for police services, resulting in the construction of new police facilities in the future.

Future project applicants would be required to pay development impact mitigation fees to comply with the City of Lodi's Municipal Code. Chapter 15.64, Development Impact Mitigation Fees, from the City of Lodi's Municipal Code, requires new developments to pay their fair share of the construction costs for police services. Therefore, new development introduced under the proposed project would require a fee for police service impacts which would offset potential demand associated with future development.

In addition, the General Plan Update includes policies to reduce significant impacts on police protection facilities and personnel, such as Policy GM-G4 states to provide police service to the needs of existing and future populations. Policy GM-P27 states to maintain sufficient police personnel and facilities to ensure the maintenance of acceptable levels of service and provide needed facilities concurrent with phased development. In addition, Policy GM-P26 states to develop a Fire and Police Services Master Plan that would establish thresholds and requirements for police facilities, staffing, and building features. The General Plan Update policies would ensure that development within the General Plan Update would not significantly impact police protection services.

Under the approved project, impacts were considered less than significant with the implementation of the existing General plan policies. The proposed policies in the General Plan Update would be similar to those in the existing General Plan. Additionally, future development under the proposed project would need to comply with the City's Municipal Code regarding paying their fair share for the construction cost of any police facilities. In addition, San Joaquin County would provide police services within the unincorporated areas that surround Lodi. Therefore, the proposed project would not result in physical impacts to the environment due to the construction or expansion of fire facilities.

Level of Significance Before Mitigation: Impact PS-3 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation: Impact PS-3 would be less than significant.

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4.7.2.5 CUMULATIVE IMPACTS

PS-4	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative police service impacts in the area.
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Cumulative police service impacts would occur from potential future development in the service areas of LPD and the San Joaquin County Sheriff's Office. The proposed project does not include specific development projects, as it serves as a guide for future development in the City and SOI. Future development projects are currently and will continue to be assessed for impacts to police protection services.

It is unlikely that approval of the General Plan and certification of the SEIR would immediately increase the need for police protection services because anticipated growth under the proposed project is projected to occur incrementally throughout the approximately 20-year plan. Additionally, compliance with the proposed General Plan policies discussed in impact discussion PS-3 would reduce the impact that potential future development could have on the LPD and the San Joaquin County Sheriff's office. Therefore, the proposed project would not result in a cumulatively considerable impact on police protection services, and cumulative impacts would be less than significant.

Level of Significance Without Mitigation: Impact PS-4 would be less than significant.

4.7.3 SCHOOL SERVICES

4.7.3.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal Regulations

There are no federal regulations pertaining to school services that apply to the proposed project.

State Regulations

California State Assembly Bill 2926: School Facilities Act of 1986

To assist in providing school facilities to serve students generated by new development, Assembly Bill (AB) 2926 was enacted in 1986 and authorizes a levy of impact fees on new residential and commercial/industrial development. The Bill was expanded and revised in 1987 through the passage of AB 1600, which added Sections 66000 et seq. to the Government Code. Under this statute, payment of impact fees by developers serves as CEQA mitigation to satisfy the impact of development on school facilities.

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California Senate Bill 50

Proposition 1A, the Kindergarten–University Public Education Facilities Bond Act of 1998, or Senate Bill (SB) 50, was approved by the voters in November 1998. SB 50 provides a comprehensive school facilities financing and reform program and enables a statewide bond issue to be placed on the ballot. Under the provisions of SB 50, school districts are authorized to collect fees to offset the costs associated with increasing school capacity as a result of development and related population increases. The funding goes to acquiring school sites, constructing new school facilities, and modernizing existing school facilities. SB 50 establishes a process for determining the amount of fees developers would be charged to mitigate the impact of development on school districts from increased enrollment. According to Section 65996 of the California Government Code, development fees authorized by SB 50 are deemed to be “full and complete school facilities mitigation.”

Under this legislation, there are three levels of developer fees that may be imposed upon new development by the governing school district. Level I fees are assessed based upon the proposed square footage of residential, commercial/industrial, and/or parking structure uses. Level II fees require the developer to provide one-half of the costs of accommodating students in new schools, and the State provides the remaining half. To qualify for Level II fees, the governing board of the school district must adopt a School Facilities Needs Analysis and meet other prerequisites in accordance with Section 65995.6 of the California Government Code. Level III fees apply if the State runs out of bond funds, allowing the governing school district to impose 100 percent of the cost of school facility or mitigation on the developer, minus any local dedicated school monies.

Local Regulations

2010 City of Lodi General Plan

The following policies from the City’s General Plan’s Growth Management and Infrastructure Element include the following policies related to school services:

Growth Management and Infrastructure Element

- **Policy GM-G4:** Provide public facilities-including police and fire services, schools, and libraries- commensurate with the needs of the existing and future population.
- **Policy GM-P21:** Locate additional schools to fill any existing gaps in capacity and meet the needs of existing and new residents. Provide needed facilities concurrent with phased development.
- **Policy GM-P22:** Coordinate with Lodi Unified School District in Monitoring housing, population, and enrollment trends and evaluating their effects on future school facility needs.
- **Policy GM-P23:** Phase school development as part of new residential growth to provide adequate school facilities, without exceeding capacity of existing schools. Schools should be provided consistent with the Lodi Unified School District’s School Facilities Master Plan, which defines student generation rates.

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- **Policy GM-P24:** Support all necessary and reasonable efforts by Lodi Unified School District to obtain funding for capital improvements required to meet school facilities, including adoption and implementation of local financing mechanisms, such as community facility districts, and the assessment of school impact fees.

City of Lodi Municipal Code

Chapter 15.48, School Facilities Dedications, provides a method for financing interim school facilities necessitated by new residential developments causing conditions of overcrowding. The chapter states that in an attendance area that has been considered overcrowded according to chapter then the owner of a proposed residential development as a condition of approval of obtaining a building permit shall dedicate land, pay fees in lieu thereof, or do a combination of both, for classroom and related facilities for elementary and/or high schools, including all mandated educational programs.

Existing Conditions

Public school services are provided by the Lodi Unified School District (LUSD). LUSD serves an area of 350 square miles and provides learning opportunities to 26,966 students in Lodi, Stockton, and surrounding county areas (LUSD 2023). The City of Lodi is served by 14 elementary schools, two middle schools, and three public high schools (Lodi 2023c). Table 4.7-2, *LUSD Schools in Lodi*, shows the LUSD schools, grade level, and enrollment for the 2022-2023 school year.

LUSD Developer Impact Fees for residential development are \$3.48 per square foot and \$0.56 per square foot for commercial development (LUSD 2024).

TABLE 4.7-2 LUSD SCHOOLS IN LODI

School and Location	Grades	2022-2023 Enrollment
Elementary Schools		
Beckman Elementary 2201 Scarborough Drive	K-6	534
Borchardt Elementary 375 Culbertson Drive	K-6	728
George Washington Elementary 831 West Lockeford Street	P-6	370
Heritage Primary Elementary 509 East Eden Street	K-3	463
Lakewood Elementary 1100 North Ham Lane	K-6	495
Larson Elementary 2375 Giannoni Way	K-6	858
Lawrence Elementary 721 Calaveras Street	K-6	524
Live Oak Elementary 5099 East Bear Creek Road	K-6	286
Lois E. Borchardt Elementary 375 Culbertson Drive	K-6	728

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School and Location	Grades	2022-2023 Enrollment
Needham Elementary 420 South Pleasant Street	4-6	347
Nichols (Leroy) Elementary 1301 South Crescent Avenue	K-6	309
Reese Elementary 1800 West Elm Street	K-6	575
Serna Charter 339 East Oak Street	K-8	357
Vinewood Elementary 1600 West Tokay Street	K-6	550
Washington Elementary 831 West Lockeford Street	K-6	370
Middle Schools		
Lodi Middle 945 South Ham Lane	7-8	898
Millswood Middle 233 North Mills Avenue	7-8	769
High Schools		
Lodi High 3 South Pacific Avenue	9-12	2,070
Tokay High 1111 West Century Boulevard	9-12	2,059
Liberty High 660 West Walnut Street	9-12	134
Alternative Schools		
Lodi Adult School 542 East Pine Street	Adult	N/A
Independence School 660 West Walnut Street	K-12	192
Lincoln Tech Academy 53 South Cherokee Lane	11-12	N/A
Schools Readiness/Preschool and Services Children's Center 701 Calaveras Street	PK	N/A
Henderson 13451 North Extension Road	7-8	20
Walter J. Katnich Community Day 13451 North Extension Road	7-12	N/A
Valley Robotics Academy 13451 North Extension Road	K-12	381
Rio Valley Charter 1110 West Kettleman Drive, Ste. 10	K-12	787
Turner Academy at Tokay Colony 13520 East Live Oak Rd.	K-8	22
Total		14,826

Note: N/A = the enrollment number was not available to the public
Sources: CDE 2023; LUSD 2023.

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4.7.3.2 STANDARDS OF SIGNIFICANCE

As lead agency, the City has determined that a project would have a significant effect on the environment if it would:

- SS-1 Result in a substantial adverse physical impact associated with the provisions 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 school services.

4.7.3.3 PROPOSED GENERAL PLAN POLICIES

The following policies from the proposed General Plan are applicable to school services.

- **Policy GM-G4:** Provide public facilities-including police and fire services, schools, and libraries- commensurate with the needs of the existing and future population.
- **Policy GM-P21:** Locate additional schools to fill any existing gaps in capacity and meet the needs of existing and new residents. Provide needed facilities concurrent with phased development.
- **Policy GM-P22:** Coordinate with Lodi Unified School District in Monitoring housing, population, and enrollment trends and evaluating their effects on future school facility needs.
- **Policy GM-P23:** Phase school development as part of new residential growth to provide adequate school facilities, without exceeding capacity of existing schools. Schools should be provided consistent with the Lodi Unified School District's School Facilities Master Plan, which defines student generation rates.
- **Policy GM-P24:** Support all necessary and reasonable efforts by Lodi Unified School District to obtain funding for capital improvements required to meet school facilities, including adoption and implementation of local financing mechanisms, such as community facility districts, and the assessment of school impact fees.

4.7.3.4 ENVIRONMENTAL IMPACTS

PS-5	Development under the proposed project would generate new students, which would impact the school enrollment capacities of area schools and result in the need for new or expanded school facilities. [Threshold PP-1]
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The 2009 Certified EIR identified two new schools that were proposed on the western edge of the City and would be required to serve the students generated from the approved project. The 2009 Certified EIR stated that because the assumptions used to determine the land area for new schools are generous, it is unlikely that additional land area will be needed beyond what is identified in the approved project and impacts would be less than significant.

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Since the approved project, there have been four new schools added to LUSD in the City of Lodi and its SOI: Henderson, Rio Valley Charter, Valley Robotics Academy, and Walter J. Katnich Community Day.

As shown in Table 3-2, *2045 General Plan Planning Horizon Forecast*, in Chapter 3, *Project Description*, the proposed project would result in 21,106 new students. Using the methodology and assumptions from the 2009 Certified EIR, the approved project would generate approximately 17,112 students¹ by 2030. In comparison, the proposed project would generate approximately 14,540 students² by 2045.

The General Plan Update includes policies that would help mitigate the impacts LUSD due to the implementation of the proposed project such as:

- **Policy GM-G4:** Provide public facilities-including police and fire services, schools, and libraries- commensurate with the needs of the existing and future population.
- **Policy GM-P21:** Locate additional schools to fill any existing gaps in capacity and meet the needs of existing and new residents. Provide needed facilities concurrent with phased development.
- **Policy GM-P22:** Coordinate with Lodi Unified School District in Monitoring housing, population, and enrollment trends and evaluating their effects on future school facility needs.
- **Policy GM-P23:** Phase school development as part of new residential growth to provide adequate school facilities, without exceeding capacity of existing schools. Schools should be provided consistent with the Lodi Unified School District's School Facilities Master Plan, which defines student generation rates.
- **Policy GM-P24:** Support all necessary and reasonable efforts by Lodi Unified School District to obtain funding for capital improvements required to meet school facilities, including adoption and implementation of local financing mechanisms, such as community facility districts, and the assessment of school impact fees.

While the proposed project would increase demand for new school facilities in the LUSD, the demand would be accommodated through the payment of development fees pursuant to SB 50. Pursuant to California Government Code Section 65995(h), payment of the impact fees fully mitigates impacts to school facilities. In addition, Chapter 15.48, School Facilities Dedications, of the City's Municipal Code outlines a financing method for interim school facilities in overcrowded areas. Future project applicants of a proposed residential development must dedicate land, pay fees, or both, for classroom and related facilities for elementary and/or high schools, including all mandated educational programs, as a condition of obtaining a building permit. If additional schools are needed, construction of additional and/or expanded facilities would be subject to CEQA review.

Level of Significance Before Mitigation: Impact PS-5 would be less than significant.

¹ Approved project total housing units (37,200) multiplied by the LUSD student generation rate used in the 2009 Certified EIR which is 0.25 for elementary, 0.07 for middle school, and 0.14 for high school students per home. The student-generated per school type is then added together.

² Proposed project total housing units (31,610) multiplied by the LUSD student generation rate used in the 2009 Certified EIR which is 0.25 for elementary, 0.07 for middle school, and 0.14 for high school students per home. The student-generated per school type is then added together.

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Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation: Impact PS-5 would be less significant.

4.7.3.5 CUMULATIVE IMPACTS

PS-6	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative school impacts in the area.
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This cumulative analysis considers growth from development within the service area of the LUSD. As described under impact discussion PS-5, the proposed project would contribute to an increased population that is served by the LUSD.

As described in impact discussion PS-5, through the proposed General Plan policies, the payment of school impact fees, and standard environmental review procedures for future school improvement projects, the proposed project would not result in a significant impact on schools. Payment of school fees and project-level review of school projects to identify potential environmental impacts and mitigation measures as needed would similarly reduce potential impacts from cumulative development. Therefore, cumulative impacts related to school facilities would be less than significant.

Level of Significance Without Mitigation: Impact PS-6 would be less than significant.

4.7.4 LIBRARY SERVICES

4.7.4.1 ENVIRONMENTAL SETTING

Regulatory Background

There are no existing federal or State regulations that apply to library services.

Local Regulations

2010 City of Lodi General Plan

The existing General Plan's Growth Management and Infrastructure Element include the following policies related to library services.

Growth Management and Infrastructure Element

- **Policy GM-P25:** Locate any additional library branches to ensure all neighborhoods are served, in particular in the Eastside neighborhood and in proposed mixed use centers.

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Existing Conditions

The Lodi Public Library at West Locust Street provides library services. The Lodi Public Library offers various services such as computer services, performances, workshops and classes, and special programs for youth and non-English speaking residents (Lodi 2023d).

4.7.4.2 STANDARDS OF SIGNIFICANCE

As lead agency, the City has determined that a project would have a significant effect on the environment if it would:

- LS-1 Result in a substantial adverse physical impact associated with the provisions 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 library services.

4.7.4.3 PROPOSED GENERAL PLAN POLICIES

The following policy from the proposed General Plan is applicable to library services.

- **Policy GM-P25:** Locate any additional library branches to ensure all neighborhoods are served, in particular in the Eastside neighborhood and in proposed mixed use centers.

4.7.4.4 ENVIRONMENTAL IMPACTS

PS-7	The proposed project would not result in adverse physical impacts to libraries and would not require the construction of new library facilities. [Threshold LS-1]
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The 2009 Certified EIR did not identify impacts on library facilities.

As shown in Table 3-2, *2045 General Plan Planning Horizon Forecast*, in Chapter 3, *Project Description*, the proposed project would result in approximately 82,186 new residents by 2045. The proposed project would result in a decrease of 17,314 people compared to the approved project of 99,500 people by 2030. Therefore, the proposed project would not result in new or substantially more severe significant impacts regarding library services when compared to the approved project.

The General Plan Update includes Policy GM-P25, which would locate additional library branches to ensure all neighborhoods are served. The policy would ensure that Lodi increases library-related services as population and housing demands increase.

Level of Significance Before Mitigation: Impact PS-7 would be less than significant.

Mitigation Measures

No mitigation measures would be required.

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Level of Significance After Mitigation: Impact PS-7 would be less than significant.

4.7.4.5 CUMULATIVE IMPACTS

PS-8	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative library impacts in the area.
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A significant cumulative environmental impact would result if this cumulative growth exceeds the ability of Lodi Public Library to adequately meet City demand, thereby requiring the construction of new facilities or modification of existing facilities as the population increases. As described in impact discussion PS-7, the proposed project would result in a decrease of 17,314 people compared to the approved project. In addition, compliance with the proposed General Plan goals, policies, and actions discussed in impact discussion PS-8 would reduce the impact that potential future development could have on the Lodi Public Library. Therefore, the proposed project would not result in a cumulatively considerable impact on library services, and cumulative impacts would be less than significant.

Level of Significance Without Mitigation: Impact PS-8 would be less than significant.

4.7.5 REFERENCES

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4.8 PARKS AND RECREATION

This section describes the regulatory framework and existing conditions in the General Plan Area related to parks and recreation and the potential impacts the Lodi General Plan Update (proposed project) can have on the City of Lodi and Sphere of Influence (SOI).

4.8.1 ENVIRONMENTAL SETTING

4.8.1.1 REGULATORY FRAMEWORK

State Regulations

California Public Park Preservation Act

The primary instrument for protecting and preserving parkland is California’s Public Park Preservation Act of 1971. Under the Public Resources Code, cities and counties may not acquire any real property that is in use as a public park for any nonpark use unless compensation, land, or both are provided to replace the parkland acquired. This provides for no net loss of parkland and facilities.

Quimby Act

The goal of the 1975 Quimby Act (California Government Code Section 66477) was to require developers to help mitigate the impacts of property improvements by requiring them to set aside land, donate conservation easements, or pay fees for park improvements. The act gave authority for passage of land dedication ordinances only to cities and counties, thus requiring special districts to work with cities and/or counties to receive parkland dedication and/or in-lieu fees. The fees must be paid, and land conveyed directly to the local public agencies that provide parks and recreation services community-wide. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities (Westrup 2002).

Originally, the Quimby Act was designed to ensure “adequate” open space acreage in jurisdictions adopting Quimby Act standards (e.g., 3–5 acres per 1,000 residents). In some California communities, the acreage fee was very high where property values were high, and many local governments did not differentiate on their Quimby fees between infill projects and greenbelt developments.

In 1982, the act was substantially amended via Assembly Bill (AB) 1600. The amendments further defined acceptable uses of or restrictions on Quimby funds, provided acreage/population standards and formulas for determining the exaction, and indicated that the exactions must be closely tied (nexus) to a project’s impacts as identified through traffic studies required by the California Environmental Quality Act (CEQA). In other words, AB 1600 requires agencies to clearly show a reasonable relationship between the public need for the recreation facility or parkland and the type of development project upon which the fee is imposed (Westrup 2002).

Cities or counties with a high ratio of parkland to inhabitants can set a standard of 5 acres per 1,000 residents for new development. Cities or counties with a lower ratio can only require the provision of up to 3

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acres of parkland per 1,000 residents. The calculation of a city's or county's parkland-to-population ratio is based on a comparison of the population count of the last federal census to the amount of City- or County-owned parkland.

Local Regulations

City of Lodi Parks and Recreation Strategic Action Plan

The Strategic Action Plan prepared for Lodi's Parks and Recreation Department acts as a blueprint for the Parks Department on how to improve their operating practices and provide facilities and services that meet the public's needs. The preparation of this plan consisted of reviewing the City's recreation facilities, interviewing stakeholders, and conducting a scientific survey that reflects the views of Lodi residents, including which recreational facilities and parks they visit, which programs they participate in, and which ones they desire and value most. The City of Lodi Parks and Recreation Strategic Action Plan also includes recommended service levels for parks shown in Table 4.8-1, *Recommended Park Service Levels for the City of Lodi*.

TABLE 4.8-1 RECOMMENDED PARK SERVICE LEVELS FOR THE CITY OF LODI

Type	Acres Per 1,000 Residents
Neighborhood Parks	1.00
Community Parks	2.50
Regional Parks	2.50
Undeveloped Parks	N/A
Total Park Acres	6.00

Source: Lodi 2024a.

City of Lodi 2001 General Plan

The existing General Plan's Parks, Recreation, and Open Space Element includes the following policies related to parks, recreation, and open spaces:

- **Policy P-G1:** Provide and maintain park and recreation facilities for the entire community.
- **Policy P-G2:** Protect natural resource areas, native vegetation, scenic areas, open space areas, and parks from encroachment or destruction.
- **Policy P-P1:** Acquire and develop additional neighborhood and community parks to serve existing and future needs.
- **Policy-P2:** Provide open space to meet recreation and storm drainage needs, at a ratio of eight acres of open space per 1,000 new residents. At least four acres must be constructed for park and recreation uses only. Drainage basins should be constructed as distinct facilities, as opposed to dual-functioning park and drainage basin facilities
- **Policy-P3:** Pursue the development of park and recreation facilities within a quarter-mile walking distance of all residences.

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- **Policy-P4:** Ensure that parks are visible and accessible from the street, welcoming the surrounding neighborhood and citywide users.
- **Policy-P5:** Update the City's Open Space and Recreation Master Plan, as necessary to:
 - Arrange a distribution of open spaces across all neighborhoods in the city;
 - Ensure that parks are visible and accessible from the street to the surrounding neighborhood, and citywide users; and
 - Provide a variety of open spaces and facilities to serve the needs of the community, ensuring a balance between indoor and outdoor organized sports and other recreation needs, including passive and leisure activities.
- **Policy-P7:** Work with developers of proposed development projects to provide parks and trails, as well as linkages to existing parks and trails.
- **Policy-P9:** Support improvements along the Mokelumne River in consultation and cooperation with the County and with creek restoration and design professionals.
- **Policy-P10:** Improve accessibility to the Mokelumne River and Lodi Lake Wilderness Area with walking and biking trails. Site park use and new facilities and trails in Lodi Lake Park such that they will not degrade or destroy riparian or sensitive habitat areas.
- **Policy-P11:** Encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation, and ensure the maximum number and variety of well-adapted plants are maintained.
- **Policy-P14:** Review infrastructure needs for existing and new recreational facilities, and where appropriate, identify required improvements in the City's Capital Improvement Program.
- **Policy-P17:** Continue to provide parks and recreation services to all residents within the Lodi Unified School District service area north of Eight Mile Road. Expand visitor and non-resident fee-based programs to ensure that non-residents pay their share of park maintenance and improvement costs.
- **Policy-P18:** Promote the use of the City's existing and planned Special Use park and recreation facilities for both local resident use and for visitor attractions, such as athletic tournaments.
- **Policy-P19:** Require master planned residential communities to dedicate parkland consistent with General Plan standards. In-lieu fees will only be acceptable where an exemption from providing a neighborhood park facility would not adversely affect local residents because an existing park is nearby.
- **Policy-P20:** Address park dedication and new development impact fees as part of the Zoning Ordinance and Subdivision Regulations Update, to ensure compliance with the General Plan park and open space standard.
- **Policy-P21:** Seek out new and protected funding sources in order to maintain and expand park inventory.

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Park Standards

The Parks, Recreation, and Open Space Element states that eight acres of parks and drainage basins are required per 1,000 new residents, with four acres serving as parkland only. A breakdown of these standards is provided in Table 4.8-2, *City of Lodi General Plan Park Standards*.

TABLE 4.8-2 CITY OF LODI GENERAL PLAN PARK STANDARDS

Type	Service Area	Size (Acre)	Acres Per 1,000 Residents
Mini-Parks/Tot Lots	¼ mile radius	<3	none
Neighborhood	½ mile radius	5-15	2.5
Community	½ mile radius	20-30	1.8
Regional	Community or Region	50+	0.8
Natural Open Space	Community or Region	Varies	2.1
Special Use Areas	Community or Region	Varies	0.8
Total			8

Source: Lodi 2010.

City of Lodi Municipal Code

Chapter 12.12 – Recreational Areas

This chapter regulates the use of City parks and park facilities so that all persons may enjoy and make use of such parks and park facilities, and to protect the rights of those in the surrounding areas.

Chapter 15.64, Development Impact Mitigation Fees

This chapter requires new developments to pay their fair share of the construction costs for public services such as parks and recreation facilities.

4.8.1.2 EXISTING CONDITIONS

The City of Lodi's Parks and Recreation Department includes parks with features such as playgrounds, picnic shelters, athletic fields, courts, community centers, a performing arts theater, a lake with river access, a nature preserve, off-leash dog parks, swimming beach and swimming pools, skate park, boat launch, cricket pitch, and open spaces (Lodi 2024b). The City of Lodi and the Lodi Unified School District have established a joint-use agreement for parks and facilities (LUSD 2015). A breakdown of the parks in Lodi, as well as their acre size and amenities, is provided in Table 4.8-3, *Parks and Open Space in Lodi*.

The City of Lodi currently has a park ratio of 4.2 acres per person,¹ based on its current population of 66,492 (DOF 2024). This exceeds the established park standard.

¹ (285.1 acres ÷ 66,492 person) x 1,000 people

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TABLE 4.8-3 PARKS AND OPEN SPACE IN LODI

Park	Acres	Amenities
Armory Park/Chapman Field	3.2	Baseball Diamond, Lighted Field, Rentable
Beckman Park	16.6	Baseball, dog park, picnic areas, Restrooms, Soccer
Candy Cane Park	0.2	Picnic Areas, Playground
Century Meadows Park	2.7	Basketball, Picnic Tables, Playground, Soccer
Emerson Park	3.0	Baseball/Softball, Horseshoe Pit, Picnic Shelters, Playground, Rentable, Restrooms
English Oaks Park	3.7	Baseball/Softball, Handball Court, Picnic Areas
Grape Bowl	15.0	Concessions, Football Field, Lighted Field, Rentable, Restrooms, Stadium, Soccer
Hale Park	3.1	Basketball Court, Picnic Tables, Playground, Restrooms
Henry Graves Park	14.0	Baseball/Softball, Picnic Areas, Playground, Restrooms, Soccer
Hutchins Street Square	4.5	Basketball, Picnic Areas, Playground, Rentable
John Blakely Park	10.0	Baseball diamond, Basketball Court, Picnic Areas
Katzakian Park	5.0	Baseball/Softball, Basketball Court, BBQ, Picnic Shelters, Rentable
Kofu Park	10.0	Baseball/Softball Diamond, Rentable, Skate Park
Lawrence Park	2.8	Picnic Areas, Playground
Legion Park	6.0	Basketball, Meeting Rooms, Lee Jones Building, BBQ, Picnic Shelters
Lodi Lake Park	43.0	BBQ, Bike Trail, Camping,
Lodi Lake Wilderness Area	58.0	Fishing, kayak rentals, river boat tours, walking path, water, trails
Peterson Park	22.0	Baseball/Softball, Basketball, BBQ, Picnic Areas, Playground, Rentable, Restrooms, Soccer, and Tennis Court
Roget Park	5.0	Bocce Ball, Exercise Stations, Horseshoe Pit, Picnic Areas, Walking Path
Rose Gate Park	3.4	Picnic Areas, Playground
Samuel D. Salas Park	26.0	Baseball/ Softball Diamond, Football, Lighted Field, Picnic Areas, Rentable, Playground, Restrooms, Soccer
Softball Complex	7.6	Baseball/Softball Diamond, Lighted Field, Picnic Areas, Rentable, Restrooms
Van Buskirk Park	1.0	Basketball, Horseshoe Pit, Picnic Areas,
Vinewood Park	16.0	Baseball/Softball, Dog Park, Soccer
Zupo Hardball Field	3.3	Baseball/Softball Diamond, Concessions, Lighted Field, Rentable, Restrooms, Sound Equipment
Total	285.1	

Sources: Lodi 2010, 2024c.

4.8.2 STANDARDS OF SIGNIFICANCE

As the lead agency, the City has determined that a project would have a significant effect on the environment if it would:

- REC-1 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.
- REC-2 Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.
- REC-3 Have a cumulative impact on recreation when combined with past, present, and reasonable foreseeable projects.

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4.8.3 PROPOSED GENERAL PLAN POLICIES

The following policies from the proposed General Plan are applicable to parks and recreation.

- **Policy-P2:** Provide open space to meet recreation and storm drainage needs, at a ratio of eight acres of open space per 1,000 new residents. At least four acres must be constructed for park and recreation use only. Drainage basins should be constructed as distinct facilities, as opposed to dual-functioning park and drainage basin facilities.
- **Policy-P7:** Work with developers of proposed development projects to provide parks and trails, as well as linkages to existing parks and trails.
- **Policy-P14:** Review infrastructure needs for existing and new recreational facilities, and where appropriate, identify required improvements in the City's Capital Improvement Program.
- **Policy-P19:** Require master planned residential communities to dedicate parkland consistent with General Plan standards. In-lieu fees will only be acceptable where an exemption from providing a neighborhood park facility would not adversely affect local residents because an existing park is nearby.

4.8.4 ENVIRONMENTAL IMPACTS

REC-1 AND REC-2 The proposed project would generate additional residents that would increase the use of the existing park and recreational facilities but would not require the immediate provision of new and/or expanded recreational facilities.

The proposed project would result in approximately 82,186 people in the City of Lodi and the SOI by 2045, which is 17,314 fewer people compared to the approved project's estimated population of 99,500 by 2030. The City of Lodi currently has a park ratio of 4.2 acres per person, which exceeds the established park standard. Based on the City's park area standard of 4.0 acres per 1,000 residents, the proposed project and approved project would create a demand for 329 acres and 397 acres of parkland, respectively. The proposed project would result in a decrease in demand of 54.5 acres compared to the approved project. Compared to the approved project,² the proposed project would result in a decrease in the demand for existing parks and recreational facilities.

Additionally, the City of Lodi Municipal Code Chapter 15.64, Development Impact Mitigation Fees, requires new developments to pay their fair share of the construction costs for parks and recreation facilities. It is expected that parks will be acquired, expanded, and/or made publicly accessible as part of future development over the horizon year of the proposed project.

² 4.0 acres/1,000 persons = 0.004 acre/person

0.004 acre/person x 82,186 residents = 329 acres (proposed project need)

0.004 acre/person x 99,500 residents = 397 acres (approved project need)

0.004 acre/person x 13,621 residents = 54.5 acre (proposed project increment compared to the approved project)

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The proposed General Update policies would help ensure that future development would meet future park demand needs and that the park-to-residents ratio meets the city's standard. For example, Policy P14 reviews infrastructure needs for existing and new recreational facilities, and where appropriate, identifies required improvements in the City's Capital Improvement Program. Policy P2 sets the recreation standard for future development stating that at least four acres must be constructed for park and recreation uses only and Policy P19 mandates master-planned residential communities to dedicate parkland in line with General Plan standards through either in-lieu fees or parkland dedications. Policy P7 also encourages the City to work with developers to provide parks and trails.

The proposed project would include policies in place to increase park space as the population of Lodi increases. In addition, new residential development is required to pay the City's impact fees that are adopted at the time of future project approval. Implementation of the proposed General Plan policies and ongoing collection of impact fees would help to ensure that acceptable park and recreational facilities are maintained and provided.

The estimated timing or location of such park and recreational facilities or the exact nature of these facilities are not known, so project-specific environmental impacts that would occur from their construction and operation cannot be determined at this time. However, depending on the type, size, and location of new parks, the construction of new parks would be subject to environmental review, and the proposed policies described in this SEIR to ensure the impacts from the construction would be less than significant. The construction of project-specific parks would require permitting and review in accordance with City standards, which would ensure that any environmental impacts are disclosed and mitigated to the extent possible. This SEIR is a programmatic document and does not evaluate the environmental impacts of future project-specific development. Therefore, this impact is considered *less than significant*.

Level of Significance Without Mitigation: Impacts REC-1 and REC-2 would be less than significant.

4.8.5 CUMULATIVE IMPACTS

REC-3	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative parks and recreation impacts in the area.
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Future growth in the area would result in increased demand for parks and recreational facilities throughout the city and any annexed land in the SOI. As a result, and as described in Impact REC-1 and REC-2, the City would need to expand and construct additional parks and other recreational facilities to meet the increased demand and maintain existing facilities. However, the proposed project would decrease demand in parks compared to what was analyzed in the approved project. Additionally, the City of Lodi Municipal Code Chapter 15.64 provides mechanisms for funding necessary park improvements through the collection of fees. By requiring developers to contribute to park funding in this manner, the City can ensure that the impact of new future development on park resources is mitigated. This approach helps maintain the quality and availability of parks, ensuring that they meet the needs of the growing population while enhancing overall community well-being. In addition, proper implementation of the proposed General Plan policies listed under Impact REC-1 would also help provide new parklands as new development increases. Additional project-

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specific environmental analysis will be completed at a future time when specific project development is proposed. As a result, the proposed project would not result in a cumulatively considerable impact on parks and recreational facilities, and cumulative impacts would be less than significant.

Level of Significance Without Mitigation: Impact REC-3 would be less than significant.

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4.8.6 REFERENCES

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4.9 TRANSPORTATION

This section of the Subsequent Environmental Impact Report (SEIR) evaluates the potential for implementation of the City of Lodi General Plan Update (proposed project) to result in transportation and traffic impacts in the City of Lodi.

4.9.1 ENVIRONMENTAL SETTING

4.9.1.1 REGULATORY FRAMEWORK

Federal Regulations

Americans With Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to ensure equality of opportunity, full participation, independent living, and economic self-sufficiency. To implement this goal, the United States Access Board has created accessibility guidelines for public rights-of-way. The guidelines address various issues, including roadway design practices, slope and terrain issues, pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way.

State Regulations

Assembly Bill 1358 (California Complete Streets Act)

Assembly Bill (AB) 1358, or the California Complete Streets Act, was signed into law on September 30, 2008. Since January 1, 2011, AB 1358 has required circulation element updates to address the transportation system from a multimodal perspective. The act states that streets, roads, and highways must “meet the needs of all users in a manner suitable to the rural, suburban, or urban context of the General Plan.” The act requires a Circulation Element to plan for all modes of transportation where appropriate, including walking, biking, car travel, and transit. In addition, the act requires Circulation Elements to consider the multiple users of the transportation system, including children, adults, seniors, and the disabled.

Assembly Bill 32 and Senate Bill 32

AB 32, or the Global Warming Solutions Act, was signed into law on September 27, 2006. AB 32 established a comprehensive program to reduce greenhouse gas (GHG) emissions to combat climate change. This Bill required the California Air Resources Board (CARB) to develop a plan to reduce GHG emissions to 1990 levels by 2020. The AB 32 Scoping Plan contains the main strategies identified by CARB to reduce GHG emissions, including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms, and an AB 32 program implementation regulation for funding. In 2016, the State legislature passed Senate Bill (SB) 32, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB recognizes cities and counties as “essential partners” in reducing GHG emissions. CARB has developed a Local Government Toolkit with guidance for

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GHG reduction strategies such as improving transit, developing bicycle and pedestrian infrastructure, increasing government fleet vehicle efficiency, and other strategies.

Senate Bill 375 (Sustainable Communities and Climate Protection Act)

SB 375, or the Sustainable Communities and Climate Protection Act, provides incentives for cities, counties, and developers to bring housing and jobs closer together and to improve public transit. The goal of the legislation is to reduce the number and length of automobile commuting trips, helping to meet the statewide targets for reducing GHG emissions set by AB 32.

SB 375 requires each metropolitan planning organization (MPO) to add a broader vision for growth to its transportation plan — called a sustainable communities strategy (SCS). The SCS must lay out a plan to meet the region's transportation, housing, economic, and environmental needs in a way that enables the area to lower GHG emissions. The SCS should integrate transportation, land use, and housing policies to plan for achievement of the emissions target for each region. The Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) Regional Transportation Plan (RTP) and SCS were most recently adopted in 2021 under the title Plan Bay Area 2050.

Senate Bill 743

On September 27, 2013, SB 743 was signed into law, starting a process that fundamentally changed transportation impact analysis as part of California Environmental Quality Act (CEQA) compliance. The law directed the Governor's Office of Planning and Research (OPR) to update the CEQA Guidelines to include new criteria for determining the significance of transportation impacts. SB 743 generally eliminates auto delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion as the sole basis for determining significant impacts under CEQA. Pursuant to the CEQA Guidelines, the new criteria "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099(b)(1)).

In December 2018, OPR published *Technical Advisory of Evaluating Transportation Impacts in CEQA*, which provided guidance for implementing SB 743. The *Technical Advisory* concluded that "achieving 15 percent lower VMT than existing development is both generally achievable and is supported by evidence that connects this level of reduction to the State's emissions goals". Pursuant to SB 743, the Natural Resources Agency adopted revisions to the CEQA Guidelines to implement SB 743 on December 28, 2018. The revised CEQA Guidelines establish new criteria for determining the significance of transportation impacts. Under the new Guidelines, vehicle miles traveled (VMT)-related metric(s) that evaluate the significance of transportation-related impacts under CEQA for land use are required beginning on July 1, 2020. The legislation does not preclude the application of local General Plan policies, zoning codes, conditions of approval, or any other planning requirements that require evaluation of LOS, but these metrics may no longer constitute the basis for determining transportation impacts under CEQA. For purposes of this EIR, the LOS data has been included for informational purposes only, to enable the reader to understand the traffic impacts of the proposed project.

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California Department of Transportation

The California Department of Transportation (Caltrans) is the state agency responsible for planning, designing, constructing, operating, and maintaining the State Highway System (SHS). Any improvements or modifications to the SHS in the city must be approved by Caltrans.

Vehicle Miles Traveled-Focused Transportation Impact Study Guide

The VMT Transportation Impact Study Guide outlines how Caltrans will review land use projects with a focus on supporting state land use goals, planning priorities, and GHG emissions reduction goals. The VMT Transportation Impact Study Guide endorses the Governor's Office of Planning and Research's (OPR's) Technical Advisory as the basis for transportation impact analysis methodology and thresholds, including the use of screening to streamline qualified projects because they help achieve the state's VMT reduction and mode shift goals (Caltrans 2020).

Regional Regulations

San Joaquin Council of Governments

The San Joaquin Council of Governments (SJCOG) is the planning, financing, and coordinating agency for the San Joaquin region, overseeing transportation, housing, and habitat conservation. SJCOG is a joint-powers authority comprised of representatives from San Joaquin County and the cities of Stockton, Lodi, Manteca, Tracy, Ripon, Escalon, and Lathrop. SJCOG's broad range of responsibilities includes managing the Measure K transportation sales tax program, collecting county demographic and economic data, airport land use planning, and regional air quality. SJCOG partners with a network of local governments, private organizations, and community groups to deliver a variety of local, state, and federal programs that support the streets, roads, highways, public transit, and other transportation resources that help our residents get where they need to be. It is also responsible for assigning each city and county its fair share of affordable housing (SJCOG 2023a).

2022 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

The 2022 RTP/SCS for the San Joaquin Valley region proactively links land use, air quality, and transportation needs. The RTP/SCS is federally required to be updated every four years. The SJCOG board adopted the 2022 RTP/SCS and accompanying documents at a special board meeting on August 25, 2022. The 2022 RTP/SCS aims to incorporate policies that create mixed-use neighborhoods and thus spur multifamily housing development and increase overall population and housing (SJCOG 2023b).

Regional Congestion Management Program

The SJCOG is responsible for updating San Joaquin County's Regional Congestion Management Program (RCMP) and monitoring its implementation. Monitoring congestion is required under the Federal Congestion Management Process (CMP) (CFR 23 450.320 (c)(3)). Measuring regional congestion and related RCMP multimodal performance measures requires an ongoing systematic monitoring program. The SJCOG RCMP Monitoring Program provides this mechanism by establishing the methodologies, requisite data, and

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multimodal performance monitoring continuously (i.e., biennial) basis. All traffic information collected as part of the SJCOG RCMP data monitoring program is made available to members and partner agencies.

Regional Bicycle, Pedestrian, and Safe Routes to School Master Plan

The Bicycle, Pedestrian, and Safe Routes to School (BPSRtS) Plan is a regional transportation planning agency developed by SJCOG to identify and prioritize bikeways and pedestrian projects in San Joaquin County and its seven cities, including Lodi. The plan helps set Measure K funding priorities and ensures that Measure K funds are used efficiently to deliver projects valued throughout the region. The plan supports local and regional projects when applying for other local, state, and federal funding opportunities. The only compelling condition for individual adoption of the Regional BPSRtS Master Plan is when it is solely used to support an application during the State Bicycle Transportation Account competitive process. Jurisdictions can use locally approved bike plans certified by SJCOG as compliant when pursuing BTA funding. Relying on the regional master Plan for other grant processes provides additional support for the project to be considered for funding. The plan also provides each region's jurisdictions with the standard elements of the Bicycle Transportation Account Compliant Plan, providing them with important external funding sources for nonmotorized transportation planning (SJCOG 2012).

Regional Transportation Impact Fee

The San Joaquin County Regional Transportation Impact Fee Program (RTIF Program) is a countywide, multijurisdictional capital improvement funding program in San Joaquin County. The RTIF Program enables all local public agencies in the county that regulate land use to collect fees from new development to contribute funding to regional transportation improvements necessary to offset the implications of growth. The SJCOG led the establishment of the RTIF Program as the agency responsible for regional planning and programming of the regional transportation network, the countywide network of highways, major arterials, and related transit services (SJCOG 2024).

Local Regulations

SB 743 Implementation Guidelines for City of Lodi

Senate Bill (SB) 743 was signed into law in 2013 and led to the addition of Section 15064.3, Determining the Significance of Transportation Impacts, to the CEQA Guidelines. Per the new section, “Generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts. By definition, one (1) VMT is defined as one mile driven by a vehicle (regardless of the number of occupants). VMT is commonly expressed as a daily value (in miles) for a typical weekday when schools are in session.

The SB 743 Implementation Guidelines for City of Lodi provide the City’s CEQA thresholds of significance to what will apply when analyzing the transportation impacts of land use projects. In December 2018, OPR published *the Technical Advisory of Evaluating Transportation Impacts in CEQA*, which guided the implementation of SB 743. The *Technical Advisory* concluded that “achieving 15 percent lower VMT than existing development is both generally achievable and is supported by evidence that connects this level of reduction to the State’s emissions goals”. The Implementation Guidelines also generally allow for ‘screening out’ of projects that are presumed to be less than significant based on the OPR’s Technical Advisory on

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Evaluating Transportation Impacts in CEQA. Depending on the details and qualifications included in the Implementation Guidelines, the following are the types of projects that could be screened out of additional analysis for purposes of CEQA (OPR 2018):

1. Small Projects – Projects that generate 110 trips per day or less. This equates to about 10,000 square feet of office space, 11 single-family dwelling units, or 17 multi-family dwelling units.
2. Projects near Transit Stations – projects located within ½ mile of an “existing major transit stop” or an “existing stop along a high quality transit corridor” would have a less-than-significant impact on VMT.
3. Affordable Residential Development – Projects consisting of a high percentage of affordable housing may be assumed to cause a less-than-significant transportation impact on VMT because they may improve jobs-housing balance and/or otherwise generate less VMT than market-based units.
4. Redevelopment Projects – If a proposed redevelopment project leads to a net overall decrease in VMT (when compared against the VMT of the existing land uses), the project would lead to a less-than-significant transportation impact.
5. Local Serving Retail – Trip lengths may be shortened and VMT reduced by adding “local-serving” retail opportunities that improve retail destination proximity. Page 17 of the Technical Advisory generally describes retail development including stores less than 50,000 square feet as locally-serving.

The City’s SB 743 Implementation Guidelines outline the VMT Thresholds of Significance and the Project Screening, which is consistent with OPR recommendations on the *Technical Advisory on Evaluating Transportation Impacts in CEQA*.

Bicycle Master Plan

The City of Lodi Bicycle Transportation Plan aims to enhance cycling by establishing policies, programs, and standards that make it safer, more comfortable, and enjoyable for all cyclists. It highlights the importance of bicycling as a viable transportation mode that can reduce motor vehicle trips, alleviating congestion and pollution. The plan outlines goals and regulatory requirements for Lodi’s current and future bicycle network, emphasizing the need for continued development of bicycle facilities and programs (Lodi 2012).

Lodi General Plan

- **Policy T-P9:** Foster walkable streets through streetscape improvements, continuous sidewalks on both sides of streets, and encouraging pedestrian access wherever feasible. Update the Subdivision Ordinance to include requirements for sidewalks, street trees, and lighting. Where sidewalks do not exist within existing developments, explore a program to provide sidewalks by reducing the curb-to-curb road width, in cases where safety and traffic flow are not compromised.
- **Policy T-P13:** In new development areas, include pedestrian connections to public transit systems, commercial centers, schools, employment centers, community centers, parks, senior centers and residences, and high-density residential areas.

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- **Policy T-P15:** Design streets in new developments in configurations that generally match and extend the grid pattern of existing city streets. This is intended to disperse traffic and provide multiple connections to arterial streets. Require dedication, widening, extension, and construction of public streets in accordance with the City's street standards. Major street improvements shall be completed as abutting lands develop or redevelop. In currently developed areas, the City may determine that improvements necessary to meet City standards are either infeasible or undesirable.

City of Lodi Municipal Code

Chapter 15.65 – San Joaquin County Regional Transportation Impact Fee

- To implement the general plan's goals and address impacts from new development in San Joaquin County, a regional transportation impact fee (RTIF) program is essential. This program will fund necessary transportation and transit improvements to mitigate expected congestion due to substantial population and employment growth through 2025 and beyond. New developments will incur fees proportional to their impact on the regional transportation network. The revenue from the RTIF program will be combined with other funding sources to complete required improvements. Without the RTIF program, current funding options will be insufficient to manage traffic congestion and its associated issues.

4.9.1.2 EXISTING CONDITIONS

Roadway Classification System

The City of Lodi is served by six different classifications of roadways, as summarized in Table 4.9-1, *Roadway Classifications and Types of Roadways in Lodi*.

Figure 4.9-1, *Roadway System*, shows the existing roadway system for Lodi.

TABLE 4.9-1 ROADWAY CLASSIFICATIONS AND TYPES OF ROADWAYS IN LODI

Street Classification	Description	Roadways In Lodi
Freeway	Freeways are high-speed facilities that serve intercity or regional traffic, with access generally limited to grade-separated interchanges	SR-99 runs along the eastern part of town and connects Lodi to the Sacramento region to the north and the San Joaquin/Stanislaus County areas to the south.
Highway	Highways are also higher-speed, regional facilities, but access is provided at grade in most cases, and in more rural areas the highway may allow access to individual parcels.	SR-12 is an east-west highway crossing the Central Valley
Expressway	Expressways are corridors with relatively high capacity and speed that can serve intra-city or intercity travel, typically allowing limited access to adjacent properties and providing signalized intersections at about half-mile intervals.	There are currently no expressways
Arterial	<ul style="list-style-type: none"> ▪ The primary function of arterial streets is to connect the regional roadway network with the local roadway network. In many cases, only limited access is provided to abutting parcels (e.g., at quarter-mile increments). Two to four travel lanes are typically provided on arterial streets in Lodi. 	<ul style="list-style-type: none"> ▪ Lower Sacramento Road ▪ Ham Lane ▪ Hutchins Street ▪ Harney Lane ▪ Century Boulevard ▪ Lodi Avenue

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Street Classification	Description	Roadways In Lodi
Collectors	Collector streets link residential and commercial areas to each other and the arterial street system. Two travel lanes are typically provided on collector streets in Lodi.	<ul style="list-style-type: none"> ▪ Turner Road ▪ Church Street ▪ Elm Street ▪ Mills Avenue ▪ Vine Street ▪ Tokay Street
Local Streets	Local streets accommodate low volumes of local traffic and provide access to individual parcels. Local streets typically have two travel lanes and allow parking on both sides of the street.	<ul style="list-style-type: none"> ▪ Black Diamond Way ▪ Primrose Drive ▪ Tejon Drive

Transit Network

Lodi GrapeLine

The Lodi GrapeLine provides local fixed-routes, demand-responsive Dial-A-Ride (DAR) for the general public, and VineLine American with Disabilities Act (ADA) paratransit service for eligible passengers. The GrapeLine fixed route consists of five regular weekday fixed routes, three weekday express routes, and four weekend routes, all of which operate within Lodi City Limits (see Figure 4.9-3, *Transit System*). The general public Dial-A-Ride and VineLine ADA paratransit services provide door-to-door service within Lodi city limits, Woodbridge, Villa Cerezos Mobile Home Park, and specific destinations in Acampo (CC 2024, Lodi 2024).

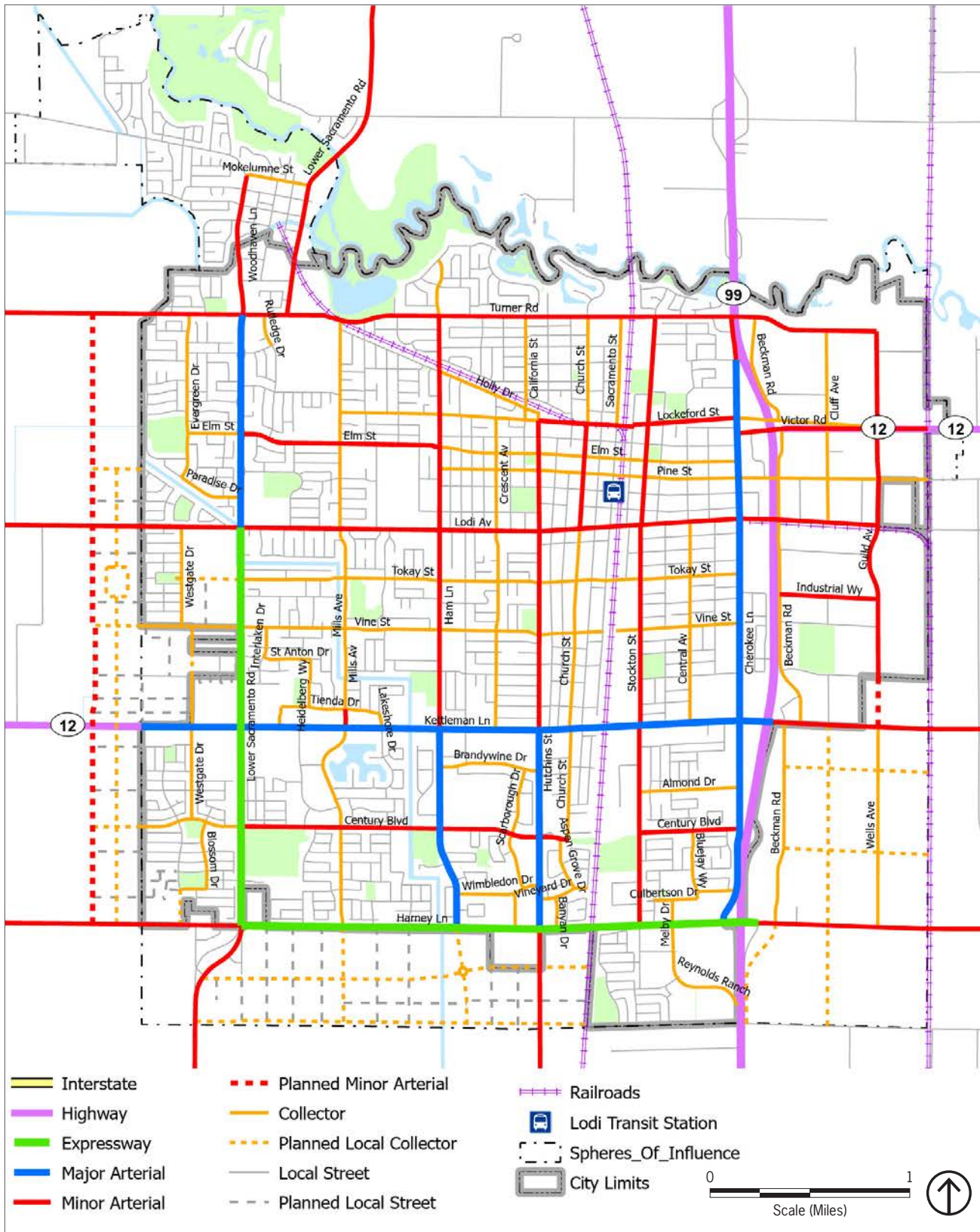
The City of Lodi Transit Station, located at 24 South Sacramento Street, additionally provides connections to Stockton, Sacramento, the Central Valley, and the Bay Area through connecting transit services. These include services operated by the San Joaquin Regional Transit District, Galt South County Transit Link, Amtrak San Joaquins (passenger rail), Amtrak Thruway (bus), and Greyhound (CC 2024, Lodi 2024).

San Joaquin Regional Transit District

San Joaquin Regional Transit District (SJRTD) provides local transit service within the Stockton metropolitan area, as well as intercity, interregional, and rural transit services throughout San Joaquin County.

The SJRTD County Hopper Route 93 runs between the Lodi Transit Station at 24 South Sacramento Street and the Stockton Downtown Transit Center (DTC), with connections to local bus routes at several locations, such as Lodi's Sunwest Shopping Plaza by Walmart or Delta Community College in Stockton (SJRTD 2025a). Within rural areas, County Hopper can deviate from its normal route up to one mile if passengers make reservations two days in advance (SJRTD 2025a).

SJRTD also operates the Van Go! pilot service, an on-demand rideshare program enabling intercity travel and rural connections. Buses are equipped to accommodate wheelchairs, and trips are booked up to two days in advance through the Van Go! smartphone app (SJRTD 2025b). SJRTD Commuter Route 163 from Stockton to downtown Sacramento via Highway 99 also stops in Lodi at the Beckman/Victor Park-n-Ride (SJRTD 2025c).



Source: City of Lodi, 2025.

Figure 4.9-1
Roadway System

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Intercity Network

Galt South County Transit (SCT) Link operates the Highway 99 Express, connecting the Lodi Transit Station to Galt, Elk Grove, and South Sacramento with all-day, hourly headways (City of Lodi 2024).

Amtrak San Joaquins is a passenger rail service that runs daily trains between Sacramento and Bakersfield. As of 2024, the Lodi Transit Station is serviced by two Amtrak San Joaquins trains. Amtrak Thruway bus service supplements the Amtrak network, providing dedicated Amtrak rail connections from the Lodi Transit Station to Amtrak stations in Stockton, Sacramento, or Davis. Tickets are available from a kiosk within the Lodi Transit Station (Amtrak 2024, City of Lodi 2024).

Greyhound Bus Lines, a national bus company, provides service to and from the Lodi Transit Station, with various connections to long-haul destinations in major California cities and beyond. Tickets are available for purchase online (Greyhound 2024, City of Lodi 2024).

Bicycle Facilities

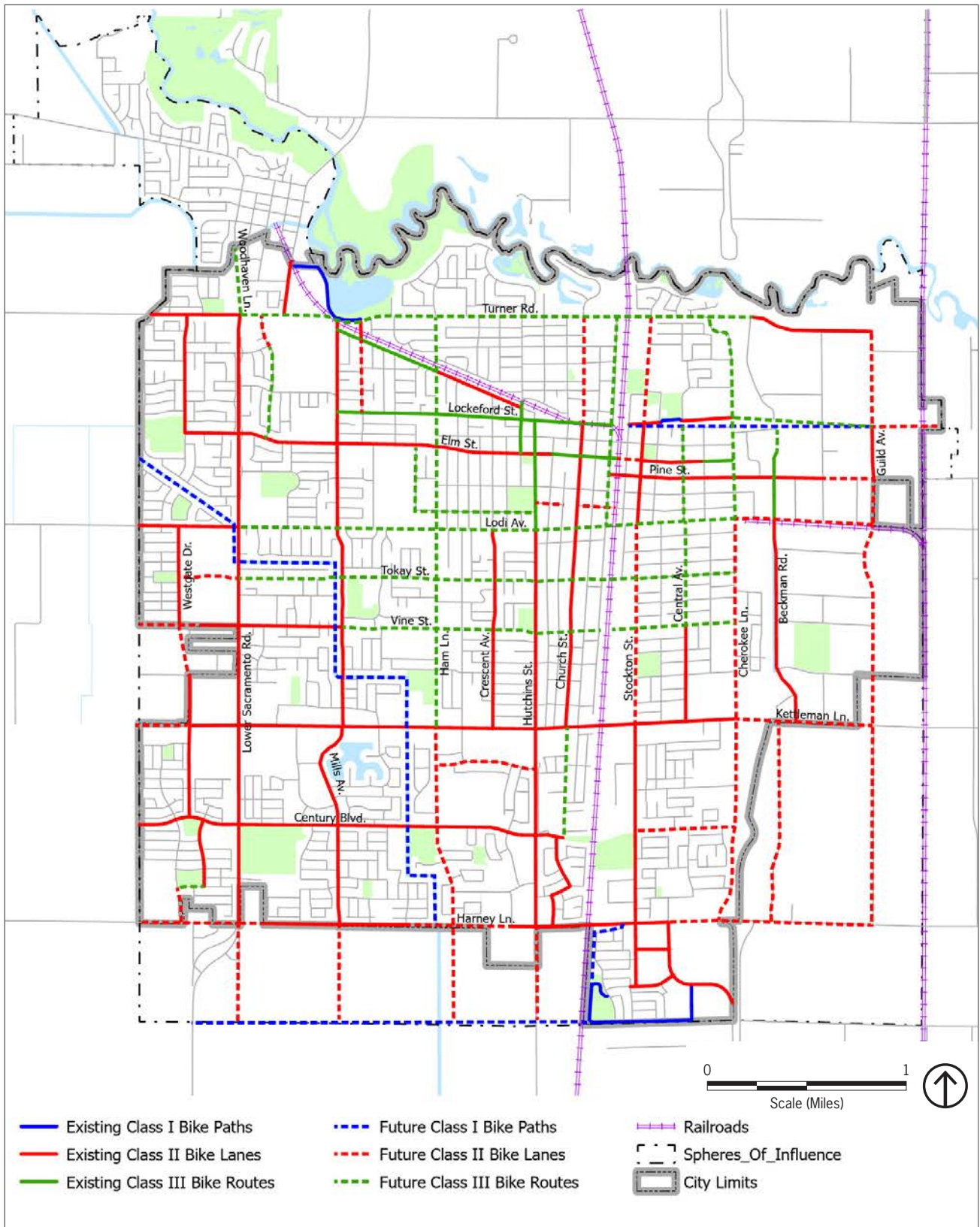
The City's existing network of bicycle facilities includes on-street bicycle lanes and bicycle routes. Bicycle facilities are generally divided into three categories:

- **Class I Bikeway (Bike Path)**- A completely separate facility designated for the exclusive use of bicycles and pedestrians that minimizes vehicular and pedestrian cross-flow. There are no Class I Bikeways in the city.
- **Class II Bikeway (Bike Lane)** – A signed and striped lane designated for the use of bicycles on a street or highway. Vehicle parking and vehicle/pedestrian cross-flow are permitted at designated locations.
- **Class III Bikeway (Bike Route)** – A route designated by signs or pavement markings for bicyclists within the vehicular travel lane (i.e., shared use) of a roadway.

Figure 4.9-2, *Bicycle Network*, shows the City's existing bicycle network.

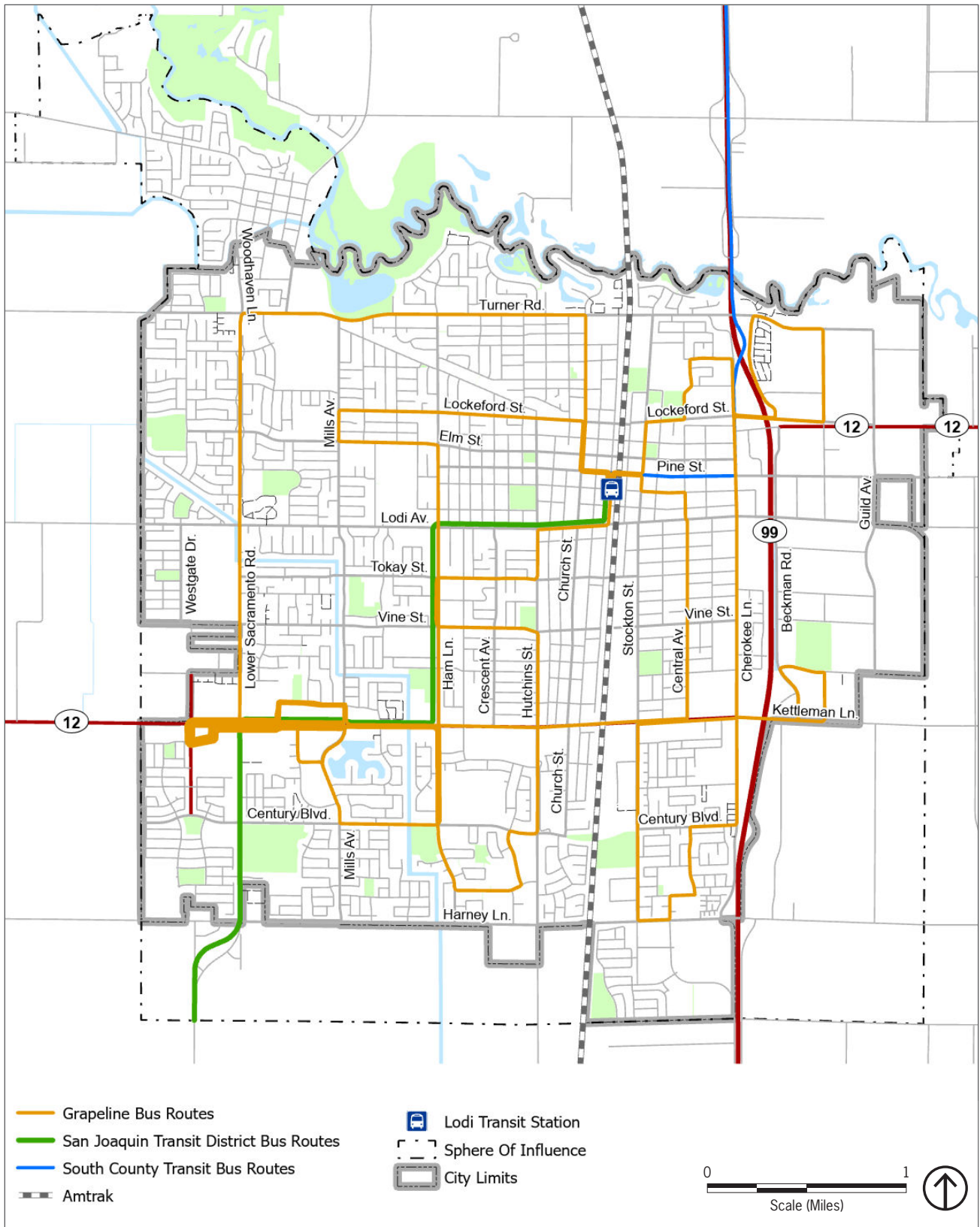
Pedestrian Facilities

The pedestrian network in Lodi is predominantly made up of sidewalks. Downtown Lodi features well-developed pedestrian facilities, including wide textured sidewalks, curb ramps, pedestrian signals, landscaping, and street furniture such as lamps, kiosks, and benches. The area includes numerous pedestrian-oriented buildings with storefronts and outdoor seating. The older residential neighborhoods surrounding downtown are equipped with complete sidewalks and curb ramps. However, some outlying neighborhoods and lower-density rural areas have limited pedestrian infrastructure. Additionally, there is a nature trail and a bicycle/pedestrian path at Lodi Lake.



Source: City of Lodi, 2025.

Figure 4.9-2
Bicycle Network



Source: City of Lodi, 2025.

Figure 4.9-3
Transit System

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4.9.2 STANDARDS OF SIGNIFICANCE

As lead agency, the City has determined that a project would normally have a significant effect on the environment if it would:

- T-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- T-2 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

For projects that do not qualify for any of the screening opportunities (see *SB 743 Implementation Guidelines for City of Lodi*, above), the City of Lodi will apply the following thresholds of significance when analyzing the VMT transportation impacts of development projects under CEQA.

1. The project would cause a significant transportation impact if it would generate an average VMT per dwelling unit or KSF that is greater than 85 percent of the city-wide average for that land use type.
 2. If the above threshold is exceeded, the project's VMT impact could still be found to be less-than-significant if it did not cause the total VMT generated by the City of Lodi to increase.
 3. Special consideration will be necessary to analyze VMT impacts for land uses that do not fit into any of the above categories. Common examples are: hotels, medical centers, wineries, churches, schools/colleges, specialty retail uses, etc. These uses should be analyzed on a case-by-case basis using available information and applying the general intent of the Technical Advisory. Additionally, projects that feature a mix of complementary land uses on-site should be analyzed using a technical approach geared toward the specifics of the project. The Technical Advisory describes two possible approaches: (1) analyze (considering internal trips) and determine significant impacts of each project component separately, or (2) consider significant impacts based on the project's dominant land use. The importance of producing consistent VMT estimates is described in the Technical Advisory, stating that "The agency should be consistent in its VMT measurement approach throughout the analysis to maintain an apples-to-apples comparison. For example, if the agency uses a home-based VMT for the threshold, it should also use home-based VMT for calculating project VMT and VMT reduction due to mitigation measures.
 4. A transportation project would cause a significant transportation impact if it would lead to induced travel and increased VMT.
- T-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
 - T-4 Result in inadequate emergency access.

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4.9.3 METHODOLOGY

This section outlines the methodology used to update the City of Lodi travel demand model and estimate Vehicle Miles Traveled (VMT) for both the base year and cumulative year, based on updated travel behavior data for residents and workers.

The City of Lodi travel demand model has a base year of 2020 and a cumulative year corresponding to 2045 (consistent with the horizon year of the General Plan update). It is a traditional three-step model (trip generation, distribution, assignment) that covers the entire City. The model includes the entirety of the City and portions of incorporated San Joaquin County. It includes State Route 99, Interstate 5, and State Route 12/Kettleman Lane. It includes 14 “external gateways”, which represent roads, highways, and freeways that extend beyond the model limits.

As part of the General Plan Update, the City of Lodi and SOI boundaries in the model were refined to reflect the current planning boundaries. Infrastructure improvement projects, such as the SR 99/Turner Road interchange, were incorporated into the base year and future year model. The future year model incorporates updated land use in the southeast planning area and assumes cumulative roadway improvements. The majority of these are consistent with the City’s Proposed General Plan and the San Joaquin Council of Governments (SJCOG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). However, several modifications to the network have been made based on their likelihood of being constructed by 2045.

Table 4.9-2, *General Plan Planning Horizon Forecast*, displays the land use totals within the City for the primary trip-generating land use types under the base and cumulative models. Note that the General Commercial job estimates include the potential for an increase in hotel jobs, especially in the Downtown.

TABLE 4.9-2 GENERAL PLAN PLANNING HORIZON FORECAST

Land Use Type	Base Year (2020)	Cumulative Year (2045)
Single-Family Units	17,881	21,667
Multi-Family Units	5,765	7,587
Duplex	689	689
Mobile Home	641	641
Senior Units	535	1,026
General Commercial (KSF)	3,261	3,674
Neighborhood Commercial	999	1,070
Hotel	808	1,188
Office	1,608	2,121
Light Industrial	5,295	6,415
Heavy Industrial	4,059	4,473
PQP	863	863
Hospital	195	195
K-12 School (student)	9,945	13,720
High School (student)	6,520	7,386

Source: Lodi 2025

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VMT Calculation

VMT calculations are performed using the base year (2020) and cumulative year (2045) models. The travel demand model estimates the total VMT based on the updated land use data, infrastructure improvements, and travel behavior characteristics. These calculations provide an understanding of the changes in VMT resulting from shifts in land use, transportation infrastructure, and commuting patterns over time. The updated VMT calculations serve as a key component for evaluating the transportation impact of land use projects within the City of Lodi, reflecting both current and future conditions based on the model's assumptions and inputs.

Table 4.9-3, *City of Lodi Base Year Model Average VMT by Land Use and Type*, and Table 4.9-4, *City of Lodi Cumulative Year Model Average VMT by Land Use and Type*, display the average VMT per dwelling unit and KSF for various land uses within the City of Lodi for the base and cumulative years of the City of Lodi travel demand model, respectively, and show the specific thresholds for each land use type.

TABLE 4.9-3 CITY OF LODI BASE YEAR MODEL AVERAGE VMT BY LAND USE TYPE

Land Use ¹	Units ²	Citywide Average VMT	Significance Threshold ³
Single-Family Units	du	81.7	69.4
Multi-Family Units	du	53.2	45.2
Senior Units	du	20.8	17.7
Office	KSF	119.0	101.2
General Commercial ⁴	KSF	298.1	253.4
Light Industrial	KSF	75.7	63.3
Heavy Industrial	KSF	22.5	19.1

Sources:

City of Lodi Base Year Travel Demand Model

Notes:

¹ Land Uses are the primary "trip-generating uses" within the City

² DU = dwelling units. KSF = Thousand square feet of floor space.

³ The significance threshold is a 15 percent reduction from the Citywide average VMT for each land use category

⁴ Includes the general commercial, shopping center, and highway commercial land use categories within the City's travel demand model, all of which have very similar trip rates.

TABLE 4.9-4 CITY OF LODI CUMULATIVE YEAR MODEL AVERAGE VMT BY LAND USE TYPE

Land Use ¹	Units ²	Citywide Average VMT under General Plan Cumulative Year 2045	Significance Threshold ³
Single-Family Units	du	77.2	65.6
Multi-Family Units	du	49.6	42.2
Senior Units	du	19.0	16.2
Office	KSF	115.8	98.4
General Commercial ⁴	KSF	271.9	231.1
Light Industrial	KSF	75.1	63.8
Heavy Industrial	KSF	22.2	18.9

Sources:

City of Lodi Cumulative Year Travel Demand Model

Notes:

¹ Land Uses are the primary "trip-generating uses" within the City

² DU = Dwelling units. KSF = Thousand square feet of floor space.

³ The significance threshold is a 15 percent reduction from the Citywide average VMT for each land use category

⁴ Includes the general commercial, shopping center, and highway commercial land use categories within the City's travel demand model, all of which have very similar trip rates.

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4.9.4 PROPOSED GENERAL PLAN GOALS AND POLICIES

The following policies from the proposed General Plan are applicable to transportation.

Land Use Plan Element

- **Policy LU-P24:** Guide new residential development into compact neighborhoods with a defined Mixed-Use Center, including public open space, a school or other community facilities, and neighborhood commercial development.
- **Policy LU-P25:** Require a centrally located Mixed-Use Center within each new residential neighborhood: one west of Lower Sacramento Road and two south of Harney Lane, as shown on the Land Use Diagram. Centers should serve as a focal point for the surrounding neighborhood, be pedestrian-oriented and encourage a mix of uses to serve local needs.

Transportation Element

- **Goal T-G1:** Plan, develop, and maintain a comprehensive, coordinated transportation system to ensure the safe, efficient, and convenient movement of people and goods.
- **Goal T-G2:** Maintain and update street standards that provide for the design, construction, operation, and maintenance of City streets based on a “complete streets” concept that enables safe, comfortable, and attractive access for pedestrians, bicyclists, motorists, and transit users of all ages and abilities, in a form that is compatible with and complementary to adjacent land uses.
- **Goal T-G3:** Provide for safe and convenient pedestrian, bicycle, and transit circulation.
- **Goal T-G6:** Improve railroad crossings to minimize safety hazards and allow for additional capacity improvements.
- **Goal T-G7:** Provide efficient and direct circulation for local truck traffic, with minimal disruption to residential neighborhoods.
- **Goal T-G8:** Encourage reduction in vehicle miles traveled as part of a strategy to reduce greenhouse gas emissions.
- **Policy T-P1:** Ensure consistency between the timing of new development and the provision of transportation infrastructure needed to serve that development. Regularly monitor traffic volumes on city streets and, prior to issuance of building permits, ensure that there is a funded plan for the developer to provide all necessary transportation improvements at the appropriate phase of development so as to minimize transportation impacts.
- **Policy T-P2:** Review new development proposals for consistency with the Transportation Element and the Capital Improvements Program. Ensure that new projects provide needed facilities to serve developments and/or contribute a fair share to the City’s transportation impact fee.
- **Policy T-P10:** Exempt downtown from LOS standards to encourage infill development in order to create a pedestrian friendly urban design character and densities necessary to support transit, bicycling, and walking. Development decisions in downtown should be based on community design and livability goals

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rather than traffic LOS. (Downtown is defined by the Downtown Mixed-Use designation in the Land Use Diagram.)

- **Policy T-P20:** In new development areas, include pedestrian connections to public transit systems, commercial centers, schools, employment centers, community centers, parks, senior centers and residences, and high-density residential areas.
- **Policy T-P25:** Establish standards requiring new commercial and mixed-use developments (of sizes exceeding certain minimum thresholds) to provide shaded and convenient bicycle racks, as appropriate. When such facilities are required, use specifications provided in Caltrans' Design Manual, Section 1000, or other appropriate standards.
- **Policy T-P27:** Review new development proposals for consistency with the Short Range Transit Plan. Ensure new projects provide needed transit facilities to serve developments and provide all needed facilities and/or contribute a fair share for improvements not covered by other funding sources.
- **Policy T-P33:** Require new development to provide transit improvements where appropriate and feasible, including direct pedestrian access to transit stops, bus turnouts and shelters, and local streets with adequate width to accommodate buses.
- **Policy T-P35:** Require community care facilities and senior housing projects with more than 25 units to provide accessible transportation services for the convenience of residents.
- **Policy T-P50:** Continue to implement the *SB 743 Implementation Guidelines for City of Lodi January 2025* that reduces—the total vehicle miles of travel ~~per household~~—by making efficient use of existing transportation facilities and by providing for more direct routes for pedestrians and bicyclists through the implementation of “smart growth” and sustainable planning principles.
- **Policy T-P51:** Periodically update the City's SB 743 Implementation Guidelines to remain consistent with State standards, guidelines and regulations related to reduction of VMT.
- **Policy T-P52:** Within its SB 743 Implementation Guidelines, the City shall identify types of projects for which VMT impacts are considered less-than-significant and shall identify types of projects that typically exceed the City's VMT thresholds. The City's SB 743 Guidelines shall be periodically reviewed and updated as needed to maintain consistency with State VMT reduction guidance.
- **Policy T-P53:** Development projects shall be reviewed for consistency with the City's SB 743 Implementation Guidelines as adopted at the time of development review or other VMT reduction criteria as may be adopted by the City at time of project review.
- **Policy T-P54:** The City shall evaluate transportation improvement projects for consistency with the City's SB 743 Implementation Guidelines or other VMT reduction criteria as may be adopted by the City.
- **Policy T-P55:** For projects that exceed the City's VMT thresholds, as adopted in the City's SB 743 Implementation Guidelines or any other VMT reduction criteria as may be adopted by the City, feasible mitigation measures shall be required to reduce VMT impacts.

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Safety Element

- **Policy S-P26:** Ensure that major access and evacuation corridors are available and unobstructed in case of major emergency or disaster. Continue to identify appropriate road standards, including minimum road widths and turnouts to provide adequate emergency access and evacuation routes.

4.9.5 ENVIRONMENTAL IMPACTS

TRANS-1 The project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. [Threshold T-1]

The 2009 Certified EIR concluded that the approved project may conflict with existing policies, plans, and programs supporting alternative transportation modes, resulting in a significant and unavoidable impact. Specifically, the EIR found that the anticipated increase in vehicle trips and travel miles would hinder the objectives of these plans. It is also important to note that under current CEQA Guidelines, transportation impacts are no longer analyzed solely based on traffic volume. An updated discussion of this impact is provided below.

Section 4.9.1.1, *Regulatory Framework*, details local programs, plans, ordinances, and policies that guide the City's transportation system, including the RTP/SCS for the San Joaquin Valley, the Lodi Bikeway Plan, and Chapter 15.65 of the Lodi Municipal Code, which addresses the San Joaquin County Regional Transportation Impact Fee.

As described in Chapter 3, *Project Description*, the proposed project aims to update the Transportation Element. This update will focus on integrating transportation demand management, reducing VMT, promoting alternative transportation, and enhancing non-motorized options. Figures 4.9-1 and 4.9-2 illustrate proposed City bicycle and roadway network updates. The City intends to focus on roadway improvements as shown in Table 4.9-5, *Lodi Rodway Improvements*.

TABLE 4.9-5 LODI RODWAY IMPROVEMENTS

Roadways	Roadway Improvements
Harney Lane	Widening Harney Lane to four continuous travel lanes between Lower Sacramento Road and SR 99
New Arterial	Constructing a new north/south arterial west of Lower Sacramento Road between Sargent Road and Harney Lane to serve new westside development
Century Boulevard	Extending Century Boulevard west of Lower Sacramento Road to the new north/south arterial
New Collector	Building a new east/west collector south of Harney Lane between Lower Sacramento Road and West Lane to support new westside development
Lower Sacramento Road	Widening Lower Sacramento Road from two to four lanes south of Harney Lane
Tokay Drive	Extending Tokay Drive to Westgate Drive
Vine Street	Extending Vine Street west of Lower Sacramento Road to the new north/south arterial

Source: Lodi 2025

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The proposed project, including the Transportation Element, includes policies that would support these documents such as increasing options for alternative transportation (public transit, walking, and bicycling); ensuring that pedestrian and bicycle systems connect residential neighborhoods to public facilities and services, schools, parks, and shopping areas; and other means to develop a multi-modal transportation system that meets the needs of all members of the community. The proposed Land Use Element supports alternative transportation by promoting infill and mixed-use development, increasing residential densities along major traffic corridors and near employment opportunities and shopping, and encouraging circulation improvements that promote community connectivity. Therefore, the goals and policies of the proposed Elements are consistent with the regional goals and strategies expressed in the RTP/SCS for the San Joaquin Valley, the Lodi Bikeway Plan, and Chapter 15.65 of the Lodi Municipal Code. Implementation of the proposed project would have a beneficial effect on the City's transportation system by enhancing safety on the roadway system and promoting alternative travel modes, including transit, pedestrian, and bicycle circulation systems.

The proposed project will not introduce new or significantly greater impacts than those analyzed in the 2009 Certified EIR for the approved project. No changes proposed will result in new or more severe impacts regarding compliance with applicable plans, ordinances, or policies related to the effectiveness of the circulation system.

Level of Significance Without Mitigation: Less than significant.

TRANS-2	The project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).
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The 2009 Certified EIR did not evaluate transportation impacts using vehicle miles traveled as a metric as a standalone topic since the topic was added after 2010. The SB 743 Implementation Guidelines for the City of Lodi, January 2025, provide a process for evaluating future projects for VMT and a list of possible mitigation measures that would apply to future projects.

As shown in Table 4.9-6, '*City of Lodi VMT Threshold for Land Uses*,' the VMT generated by the General Plan 2045 exceeds the significance threshold, which is set at 85 percent of the citywide average for both residential and non-residential land uses. As a result, the proposed project would lead to a potentially significant impact. Additionally, given that the project is citywide in scope, it would contribute to an overall increase in the total VMT generated by the City of Lodi, further indicating a potentially significant impact.

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TABLE 4.9-6 CITY OF LODI VMT THRESHOLD FOR LAND USES

Land Use ¹	Units ²	VMT Per Land Use Type			Reduction Needed To Achieve Threshold
		Base Year ³	General Plan 2045	Threshold (85% of Base Condition) ³	
Single-Family Units	DU	81.7	77.2	69.4	11.2%
Multi-Family Units	DU	53.2	49.6	45.2	9.7%
Senior Units	DU	20.8	19.0	17.7	7.3%
Office	KSF	119.0	115.8	101.2	14.4%
General Commercial ⁴	KSF	298.1	271.9	253.4	7.3%
Light Industrial	KSF	75.7	75.1	63.3	18.6%
Heavy Industrial	KSF	22.5	22.2	19.1	16.2%

Sources: City of Lodi Base Year and Cumulative Year Travel Demand Model

Notes:

1. Land Uses are the primary “trip generating uses” within the City

2. DU = dwelling units. KSF = Thousand square feet of floor space.

3. Refer to Table 4.9-3

4. Includes the general commercial, shopping center, and highway commercial land use categories within the City’s travel demand model, all of which have very similar trips rates.

Future projects under the proposed project would be compared to the cumulative year model average VMT by land use type (see Table 4.9-4). Feasible mitigation measures will be recommended for land use projects that exceed the applicable VMT thresholds and screening criteria. These mitigation measures would be applied to projects, for example, that have the potential to either result in an increase in VMT above the 15 percent reduction guideline recommended in the OPR Technical Guidelines or would result in an increase in VMT by the nature of the project, such as building a new road or widening a roadway to add more vehicle capacity. While many strategies exist to reduce VMT, not all are suitable for suburban areas like the City of Lodi. Additionally, many of these strategies have not been thoroughly studied to quantify their effectiveness in reducing VMT.

Mitigation measures for VMT impacts principally focus on modifying the project to generate less VMT, often through the implementation of transportation demand management (TDM) strategies. This approach is different from pre-SB 743 environmental review practices, where significant transportation impacts were reduced by adding roadway capacity at impacted facilities. Since adding capacity does not reduce VMT, off-site capacity-increasing improvements will no longer be recommended as mitigation in CEQA documents but may still be included as conditions of approval.

The City has several future improvements planned that would increase roadway capacity (see Table 4.9-5). These improvements may affect the potential to reduce VMT. However, most of the improvements will be part of a citywide capital improvement program, where new projects will pay their proportionate share rather than project-specific conditions of approval. Although adding vehicle lanes is expected to increase VMT, the new roadway projects will also include features like bike lanes, transit turnouts, and other amenities that will help reduce VMT in the long term.

Table 4.9-7, *Summary of Potential Mitigation Measures for VMT Impacts*, lists future project mitigation strategies from the SB 743 Implementation Guidelines for development, along with community-wide VMT reduction strategies. The effectiveness of these strategies is not provided because they are specific to the geographic context and the end-user. The Handbook for Analyzing Greenhouse Gas Emission Reductions,

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Assessing Climate Vulnerabilities, and Advancing Health and Equity outlines the maximum expected VMT reductions associated with individual strategies, but these values are dependent upon the type, location, and size of the project. These details cannot be determined at a programmatic level at this time.

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TABLE 4.9-7 SUMMARY OF POTENTIAL MITIGATION MEASURES FOR VMT IMPACTS

Residential Projects	Employment Uses
<ul style="list-style-type: none"> ▪ Increase residential density (T-1) ▪ Integrate affordable and below market rate housing (T-4) ▪ Increase mix of uses within the project ▪ Locate project in area with high destination accessibility (T-31A) ▪ Provide transit-oriented development (T-3) ▪ Locate project near bike path/bike lane (T- 33) ▪ Orient project toward transit, bicycle, or pedestrian facilities (T-32) ▪ Limit on-site residential parking supply(T-15) ▪ Unbundle on-site residential parking costs (T-16) ▪ Improve street connectivity (T-17) ▪ Developer provide subsidized or discounted transit program(T-9) ▪ Provide pedestrian network improvement (T-18) ▪ Provide bike parking (T-34) 	<ul style="list-style-type: none"> ▪ Increase job density (T-2) ▪ Increase mix of uses within the project ▪ Provide transit-oriented development (T-3) ▪ Improve destination accessibility in underserved areas (T-31B) ▪ Orient project toward transit, bicycle, or pedestrian facilities (T-32) ▪ Locate project near bike path/bike lane (T-33) ▪ Improve street connectivity (T-17) ▪ Implement commute trip reduction program (voluntary and mandatory) ² (T-5&6) ▪ Implement commute trip reduction marketing (T-7) ▪ Provide ridesharing program ³ (T-8) ▪ Provide bike parking (T-34) ▪ Implement employer-sponsored subsidized or discounted transit program(T-9) ▪ Provide end of trip bicycle facilities (T-10) ▪ Provide employer-sponsored vanpool (T-11) ▪ Price workplace parking (T-12) ▪ Implement employee parking cash-out (T-13) ▪ Implement on-site preferential parking permit program (T-39) ▪ Provide employer-sponsored shuttles (T-44) ▪ Implement a telecommute and/or alternative work schedule program (T-42) ▪ Provide employer-sponsored first and last mile TNC incentives (for accessing transit stations) (T-38)

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Community-Level ⁴

- Provide traffic calming measures (T-35)
- Replace traffic controls with roundabout (T-49)
- Implement market price on-street public parking (T-24)
- Expand on-demand microtransit/Dial-A-Ride Service (T-45)
- Work with Lodi Unified School District to implement expanded school bus program (T-40)
- Install park and ride lots (T-51)
- Expand transit network coverage (T-25)
- Implement transit-supportive roadway treatments(T-27)
- Provide real-time transit information (T-43)
- Expand bikeway network (T-20)
- Provide bike parking (near transit) (T-47)
- Dedicate land for bike trails (T-37)
- Construct or improve bike facility/boulevard (T-19A & B)
- Provide pedestrian network improvement (T-18)
- Provide Transit Shelters (T-46)

Notes:

1. Restaurant/retail uses may be able to apply some of the strategies below to achieve employee VMT reductions, along with other strategies that focus on reducing customer VMT.

2. This program includes other measures not explicitly listed here such as guaranteed ride home, membership in a Transportation Management Association (TMA), identification of an on-site transportation coordinator, ride- matching programs, commuter information services, etc.

3. Includes preferential rideshare/carpool parking spaces and designated passenger loading zones.

4. Community-level strategies would change community-wide VMT (including that of a proposed project). This is in contrast to residential and employment VMT strategies, which would primarily affect the proposed project's VMT only.

Source: Fehr & Peers, 2025, derived primarily from *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (California Air Pollution Control Officers Association, CAPCOA, 2021) *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (caleemod.com)

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The proposed project is a programmatic General Plan Update, and considerable uncertainty exists about the implementation and feasibility of mitigation for individual development projects. Projects with significant VMT impacts would be required to implement VMT mitigation, consisting of modifications to project designs and implementation of transportation demand management strategies. While the Transportation Element would include VMT reduction strategies (see Table 4.9-6) that could be potentially used as mitigation measures, since this is a comprehensive analysis and the effectiveness of each mitigation measure is dependent on the land use context and other factors, it cannot be determined at this time whether impacts would be reduced to less than significant for individual projects. The SB 743 Implementation Guidelines require an analysis of each project to determine which of the measures would be appropriate.

Mitigation Measures

Because VMT reduction strategies change over time, the measures are included in the implementation guidelines and referenced from this EIR to allow them to be easily updated and applied as appropriate. As a result, the VMT impacts associated with the proposed project would be considered significant and unavoidable.

Level of Significance Without Mitigation: Significant and unavoidable.

TRANS-3	The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
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The 2010 Certified EIR did not evaluate this transportation impact.

Roadway hazards are typically assessed at the project level. Potential hazards associated with future development projects would be analyzed and evaluated in detail through the project-specific environmental review process or during project application review. Before constructing streets, highways, alleys, traffic signals, and related public improvements, the Lodi Public Works Department reviews and needs to approve plans according to construction standards and specifications.

The proposed project anticipates roadway improvements noted in Impact TRANS-1 and the new roadway located east of Lodi as shown in Figure 4.9-1 could potentially increase hazards. While growth within the proposed project would result in changes to the existing roadway network, the proposed Transportation Element contains policies that require local planning and development decisions to consider impacts on roadway facilities. The following General Plan goals and policies would support the design of a safe roadway system for all modes of travel:

- **Goal T-G1:** Plan, develop, and maintain a comprehensive, coordinated transportation system to ensure the safe, efficient, and convenient movement of people and goods

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- **Goal T-G2:** Maintain and update street standards that provide for the design, construction, operation, and maintenance of City streets based on a “complete streets” concept that enables safe, comfortable, and attractive access for pedestrians, bicyclists, motorists, and transit users of all ages and abilities, in a form that is compatible with and complementary to adjacent land uses.
- **Goal T-G3:** Provide for safe and convenient pedestrian, bicycle, and transit circulation
- **Goal T-G6:** Improve railroad crossings to minimize safety hazards and allow for additional capacity improvements
- **Goal T-G7:** Provide efficient and direct circulation for local truck traffic, with minimal disruption to residential neighborhoods
- **Policy T-P1:** Ensure consistency between the timing of new development and the provision of transportation infrastructure needed to serve that development. Regularly monitor traffic volumes on city streets and, prior to issuance of building permits, ensure that there is a funded plan for the developer to provide all necessary transportation improvements at the appropriate phase of development so as to minimize transportation impacts.
- **Policy T-P2:** Review new development proposals for consistency with the Transportation Element and the Capital Improvements Program. Ensure that new projects provide needed facilities to serve developments and/or contribute a fair share to the City’s transportation impact fee.
- **Policy T-P10:** Exempt downtown from LOS standards to encourage infill development in order to create a pedestrian friendly urban design character and densities necessary to support transit, bicycling, and walking. Development decisions in downtown should be based on community design and livability goals rather than traffic LOS. (Downtown is defined by the Downtown Mixed-Use designation in the Land Use Diagram.)
- **Policy T-P20:** In new development areas, include pedestrian connections to public transit systems, commercial centers, schools, employment centers, community centers, parks, senior centers and residences, and high-density residential areas.
- **Policy T-P25:** Establish standards requiring new commercial and mixed-use developments (of sizes exceeding certain minimum thresholds) to provide shaded and convenient bicycle racks, as appropriate. When such facilities are required, use specifications provided in Caltrans’ Design Manual, Section 1000, or other appropriate standards.
- **Policy T-P27:** Review new development proposals for consistency with the Short Range Transit Plan. Ensure new projects provide needed transit facilities to serve developments and provide all needed facilities and/or contribute a fair share for improvements not covered by other funding sources.
- **Policy T-P33:** Require new development to provide transit improvements where appropriate and feasible, including direct pedestrian access to transit stops, bus turnouts and shelters, and local streets with adequate width to accommodate buses.
- **Policy T-P35:** Require community care facilities and senior housing projects with more than 25 units to provide accessible transportation services for the convenience of residents.
- **Policy T-P50:** Continue to implement the *SB 743 Implementation Guidelines for City of Lodi January 2025* that reduces the total vehicle miles of travel ~~per household~~ by making efficient use of existing

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transportation facilities and by providing for more direct routes for pedestrians and bicyclists through the implementation of “smart growth” and sustainable planning principles.

- **Policy T-P51:** Periodically update the *City’s SB 743 Implementation Guidelines* to remain consistent with State standards, guidelines and regulations related to reduction of VMT.
- **Policy T-P52:** Within its *SB 743 Implementation Guidelines*, the City shall identify types of projects for which VMT impacts are considered less-than-significant and shall identify types of projects that typically exceed the City’s VMT thresholds. The *City’s SB 743 Guidelines* shall be periodically reviewed and updated as needed to maintain consistency with State VMT reduction guidance.
- **Policy T-P53:** Development projects shall be reviewed for consistency with the *City’s SB 743 Implementation Guidelines* as adopted at the time of development review or other VMT reduction criteria as may be adopted by the City at time of project review.
- **Policy T-P54:** The City shall evaluate transportation improvement projects for consistency with the *City’s SB 743 Implementation Guidelines* or other VMT reduction criteria as may be adopted by the City.
- **Policy T-P55:** For projects that exceed the City’s VMT thresholds, as adopted in the *City’s SB 743 Implementation Guidelines* or any other VMT reduction criteria as may be adopted by the City, feasible mitigation measures shall be required to reduce VMT impacts.

Implementation of these policies would promote the design of improvements to the transportation network that are safe for all modes of travel. Compliance with State regulations on roadway and facility design, materials, and signage would further minimize this impact. Implementation of the proposed project would not result in conflicts with adopted policies, plans, or actions or otherwise increase hazards due to a design feature that may have a significant impact on the environment. The impact would be less than significant.

Significance Without Mitigation: Less than significant.

TRANS-4 The project would not result in inadequate emergency access.

The 2009 Certified EIR identified a significant and unavoidable impact on emergency access due to increased vehicular traffic from the approved project, even with traffic calming measures in place. However, transportation impacts should not be analyzed solely based on traffic volume. An updated discussion of this impact is provided below.

Future potential development that could occur during the buildout of the proposed project would alter land use patterns and increase travel demand on the transportation network which may influence emergency access. Like roadway hazards, emergency access is typically assessed at the project level, and potential impacts to emergency access associated with future development projects would be analyzed and evaluated in detail through the environmental review process or during project application review. Before constructing streets, highways, alleys, traffic signals, and related public improvements, the City of Lodi Public Works Department reviews and needs to approve plans according to construction standards and specifications to ensure adequate emergency access. This may include applying for an encroachment permit and other requirements outlined in Chapter 12.40, Street, Sidewalks, and Public Places, of the City’s Municipal Code for projects that involve working in the City of Lodi right-of-way.

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In addition, the proposed project contains policies that aim to enhance safety and accessibility during emergencies while managing the impacts of new development on the transportation system. For example, Policy S-P26 which states to ensure that major access and evacuation corridors are available and unobstructed in case of a major emergency or disaster and to continue to identify appropriate road standards, including minimum road widths and turnouts to provide adequate emergency access and evacuation routes. Policy T-P1 aims to align the timing of new development with the necessary transportation infrastructure. It includes regular monitoring of traffic volumes and requires developers to have a funded plan for transportation improvements before building permits are issued, minimizing transportation impacts.

The implementation of the proposed project would not result in inadequate emergency access that could significantly impact the environment; therefore, the impacts would be considered less than significant.

Level of Significance Without Mitigation: Less than significant.

4.9.6 CUMULATIVE IMPACTS

TRANS-5	Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in a cumulative impact with respect to vehicle miles traveled.
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The proposed project aligns with existing transportation policies and plans, ensuring consistency across the circulation system for transit, roadways, and pedestrian facilities. The project is designed to maintain roadway safety, avoiding increases in hazards related to geometric design features and incompatible uses. The proposed project ensures that emergency access remains adequate, mitigating potential impacts associated with increased traffic. As shown in Table 4.9-5, the proposed project would exceed the significance threshold. Furthermore, due to the project's nature, it would lead to an increase in the total VMT generated by the City of Lodi. Since VMT reduction strategies may evolve, these measures are included in the implementation guidelines and referenced in this EIR to ensure they can be updated and applied as needed. Consequently, the VMT impacts associated with the proposed project would be considered significant and unavoidable.

The context of the impact evaluation described in Impact TRANS-1 through TRANS-4 is in the cumulative context of the region. As described in these discussions, impacts related to bus transit, bicycle and pedestrian facilities, and roadways in the proposed would be less than significant, as would those associated with emergency access and roadway hazards. Most impacts would require project-specific evaluation to determine whether the project's design is consistent with relevant plans, ordinances, and policies; would create or increase roadway hazards; or result in inadequate emergency access. Additionally, projects would be evaluated by San Joaquin County for assessing VMT impacts, during which it would be determined whether such projects would require VMT analysis or be screened out under the specified criteria. However, as determined under TRANS-2, impacts associated with per capita regional VMT from the projected development under the proposed project would be significant and unavoidable. Therefore, the impact on VMT would be cumulatively considerable.

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Level of Significance Without Mitigation: Significant and unavoidable.

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4.9.7 REFERENCES

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UTILITIES & SERVICE SYSTEMS

4.10 UTILITIES AND SERVICE SYSTEMS

This section of the Draft Subsequent Environmental Impact Report (SEIR) evaluates the potential impacts of the proposed project on utilities and services systems. Potential changes to circumstances since the 2008 Certified EIR that could result in new significant or substantially more severe environmental impacts for the proposed project are also reviewed, and cumulative impacts are considered. Utilities and services systems include wastewater (sewage) treatment and collection systems, water supply and distribution systems, storm drainage, and solid waste collection and disposal. Potential impacts to hydrology (e.g., flooding) and water quality are provided in Chapter 8, *Impacts Found Not to Be Significant*. Storm drainage, though discussed below, is also addressed in Chapter 8.

The General Plan facilities diagrams do not depict all adopted facilities plans. Project applicants must coordinate with the City during the project review process to ensure alignment with all applicable adopted plans and requirements.

This section is part based on the following technical report:

- *Water Infrastructure and Supply Memorandum*, PlaceWorks, October 20, 2024 (Appendix C).

4.10.1 WASTEWATER TREATMENT AND COLLECTION

4.10.1.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulation

Clean Water Act

The Clean Water Act (CWA) regulates the discharge of pollutants into watersheds throughout the nation. Under the CWA, the United States Environmental Protection Agency (EPA) implements pollution control programs, sets wastewater standards, and makes it unlawful to discharge pollutants from a point source into any navigable waters without obtaining a permit. Point sources include any conveyances, such as pipes and man-made drainage channels, from which pollutants may be discharged.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; set prohibitions on discharges not specifically allowed under the permit; and establish provisions

UTILITIES & SERVICE SYSTEMS

that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities. Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant.

State Regulation

Statewide General Waste Discharge Requirements

On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted a General Waste Discharge Requirement (Order No. 2006-0003) and a monitoring and reporting program (Order No. WQ-2013-0058-EXEC) for all publicly owned sanitary sewer collection systems in California with more than one mile of sewer pipes. The Statewide General Waste Discharge Requirements were readopted in December 2022 (Order No. 2022-0103-DWQ). The order provides a consistent statewide approach to reducing sanitary sewer overflows (SSO) by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sewer System Management Plan (SSMP). The General Waste Discharge Requirement also requires that SSOs be reported to the SWRCB using an online reporting system. The SWRCB has delegated authority to the nine Regional Water Quality Control Boards (RWQCB) to enforce these requirements within their regions.

The SSMP evaluates existing sewer collection systems and provides a framework for minimizing the frequency and impact of SSOs. The SSMP includes an overflow emergency response plan; a fats, oil, and grease control program; scheduled inspections and condition assessment; design and construction standards; capacity assessment and management; and monitoring program.

Assembly Bill 885

The SWRCB implements regulations to reduce the impact of wastewater sources on groundwater quality in accordance with Assembly Bill (AB) 885 through its water quality control policy for siting, design, operation, and maintenance of onsite wastewater treatment systems (OWTS) (septic systems) (Resolution No. 2012-0032). This policy establishes a statewide, risk-based, tiered approach for the regulation and management of OWTS installations and replacements that have affected or will affect groundwater or surface water to a degree that makes it unfit for drinking water or other uses or cause a health or public nuisance condition. RWQCBs incorporate the standards established in the OWTS policy or standards that are more protective of the environment and public health into their water quality control plans. Implementation is overseen by the state and regional water quality boards and local agencies (e.g., county and city departments and independent districts).

UTILITIES & SERVICE SYSTEMS

Regional Regulation

Central Valley Regional Water Quality Control Board

The City of Lodi is in the Central Valley RWQCB (District 5). Each RWQCB issues and enforces NPDES permits within the area of its jurisdiction, which includes permits for wastewater treatment plants, water reclamation facilities, and industrial waste discharges. NPDES permits allow the RWQCB to regulate where and how waste is disposed, including the discharge volume and effluent limits of waste and the monitoring and reporting responsibilities of the discharger. The RWQCBs are also charged with conducting inspections of permitted discharges and monitoring permit compliance.

As described below, City is served by the White Slough Water Pollution Control Facility. The NPDES permits and waste discharge requirements for this facility is described in the section below.

White Slough Water Pollution Control Facility NPDES Permit

Wastewater generated by development in the City is discharged to the City's municipal system and conveyed to trunk sewers to be treated by the White Slough Water Pollution Control Facility. Wastewater discharge requirements for the facility are detailed in NPDES No. CA0079243, Order No. R5-2007-0113. The permit includes the conditions needed to meet minimum applicable technology-based requirements. The permit includes limitations more stringent than applicable federal technology-based requirements where necessary to achieve the required water quality standards.

Local Regulation

City of Lodi Wastewater Master Plan

The City of Lodi adopted an update to its Wastewater Master Plan in 2012. The intent of the Master Plan is to determine the sewer system improvements needed to serve the expansion of the City under the 2010 General Plan. The Master Plan presents design criteria, defines the level of service standards, analyzes service demands, considers alternative facilities plans, and presents the recommended plan for providing sanitary sewer service to the community (Lodi 2012).

City of Lodi Sewer System Management Plan

The City prepared and adopted an SSMP in 2009 (last updated in 2019) to comply with SWRCB's Waste Discharge Requirements. The intent of the document to properly manage, operate, and maintain all areas of the sanitary sewer system to reduce and prevent SSOs to the extent possible as well as mitigate any SSOs that do occur. The SSMP describes how the sanitary sewer system is operated and maintained; efforts to minimize infiltration and inflow; design and performance standards; overflow emergency response plan; a fats, oil and grease control program; and monitoring and audit requirements (Lodi 2019).

UTILITIES & SERVICE SYSTEMS

City of Lodi Municipal Code

Title 13, Chapter 13.12, Sewer Service, of the Lodi Municipal Code sets the wastewater discharge regulations uniform standards for discharges of domestic, industrial, and storm drainage water into city sewerage systems. The following is a discussion of relevant sections and articles of this chapter.

- **Article II, Discharge Restrictions**, outlines the limits on discharges into the municipal sewer system and specific requirements for industrial waste disposal. According to Section 13.12.060, septic tanks are prohibited if the property to be served is within 100 feet of the domestic system unless permitted by the public works director.
- **Article III, Service Charges and Capacity Fees**, outlines the fee rates for users of the sewer system. Charges for sewer service are based on sewage service units that have been calculated for each land use in the City. Section 13.12.190 establishes that any actual costs incurred by the City while constructing the sewer connections shall be separate from the capacity fees in this Article.
- **Article IV, Construction Generally**, and **Article V, Extensions**, detail the requirements for new extensions of sewer service. Property owners must submit an application to gain service and conform with the City's public improvement design standards for sewer connection construction.

City of Lodi Impact Mitigation Fee Program

The City has adopted an impact mitigation fee program (IMFP) to fund the expansion of backbone infrastructure and capital facilities to serve current and future development. As established in the City of Lodi's Mitigation Fee Program Nexus Study, the City levies two development impact fees that fund improvements to the City's wastewater system. This includes the Wastewater Treatment fee that is used to pay the City's debt for previous expansions to the White Slough Water Pollution Control Facility. All new development in the City is subject to the Wastewater Treatment fee. Development in the southern portion of the City west of State Route 99, east of Lower Sacramento Road, and south of Harney Lane, is subject to an additional development impact fee that will be used to fund a new trunk line for this portion of the City. As of the 2021 IMFP study, the South Wastewater Trunk Line impact fee will be used to fund the construction of the approximately 20,260 linear feet of wastewater pipe and a new pump station (Lodi 2021a).

City of Lodi 2010 General Plan

The existing City of Lodi General Plan includes the following policies in the Growth Management Element related to wastewater and sewer collection management:

- **Policy GM-G2:** Provide infrastructure—including water, sewer, stormwater, and solid waste/recycling systems—that is designed and timed to be consistent with projected capacity requirements and development phasing.
- **Policy GM-P5:** Update impact fee system to balance the need to sufficiently fund needed facilities and services without penalizing multifamily housing or infill development.

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- **Policy GM-P8:** Ensure that public facilities and infrastructure—including water supply, sewer, and stormwater facilities—are designed to meet projected capacity requirements to avoid the need for future replacement and upsizing, pursuant to the General Plan and relevant master planning.
- **Policy GM-P9:** Coordinate extension of sewer service, water service, and stormwater facilities into new growth areas concurrent with development phasing. Decline requests for extension of water and sewer lines beyond the city limit prior to the relevant development phase and approve development plans and water system extension only when a dependable and adequate water supply for the development is assured.
- **Policy GM-P10:** Develop new facilities and rehabilitate existing facilities as needed to serve existing development and expected development, in accordance with the General Plan and relevant infrastructure master plans.
- **Policy GM-P11:** Prepare master plan documents as necessary during the planning period to address the infrastructure needs of existing and projected growth, and to determine appropriate infrastructure provision for each phase. Existing master plan documents should be used until new master plans are developed, and updates should occur as follows:
 - A sanitary sewer system master plan should be undertaken soon after General Plan adoption. In particular, this master plan should address how to best provide sewer service for the growth on the east side of the city and for infill development, and to determine if additional wastewater flows will need to be diverted into the proposed South Wastewater Trunk Line.
 - A citywide stormwater master plan should be prepared soon after General Plan adoption to confirm or revise existing planning studies.
 - A White Slough Water Pollution Control Facility master plan should be completed during the early stages of Phase 1, most likely in 2013 or 2014.
 - A recycled water master plan was prepared in May 2008 and is current as of 2009. It may be appropriate to update this document when the next WSWPCF master plan is prepared, in 2013 or 2014, to evaluate the feasibility of constructing a scalping plant to provide recycled water for use within the city.
 - A potable water supply and distribution master plan is not urgently needed, as of 2009. Future planning should be completed as necessary.
 - The Urban Water Management Plan should be updated on a five year basis in compliance with State of California mandated requirements. Future plans should be developed in 2010, 2015, 2020, 2025, and 2030.
- **Policy GM-P18:** Explore a program of complete wastewater reclamation and reuse at the White Slough Water Pollution Control Facility.

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- **Policy GM-P19:** Encourage the use of tertiary treated wastewater for irrigation of agricultural lands, large landscaped areas, and recreation/open space areas within close proximity to the White Slough Water Pollution Control Facility.

Existing Conditions

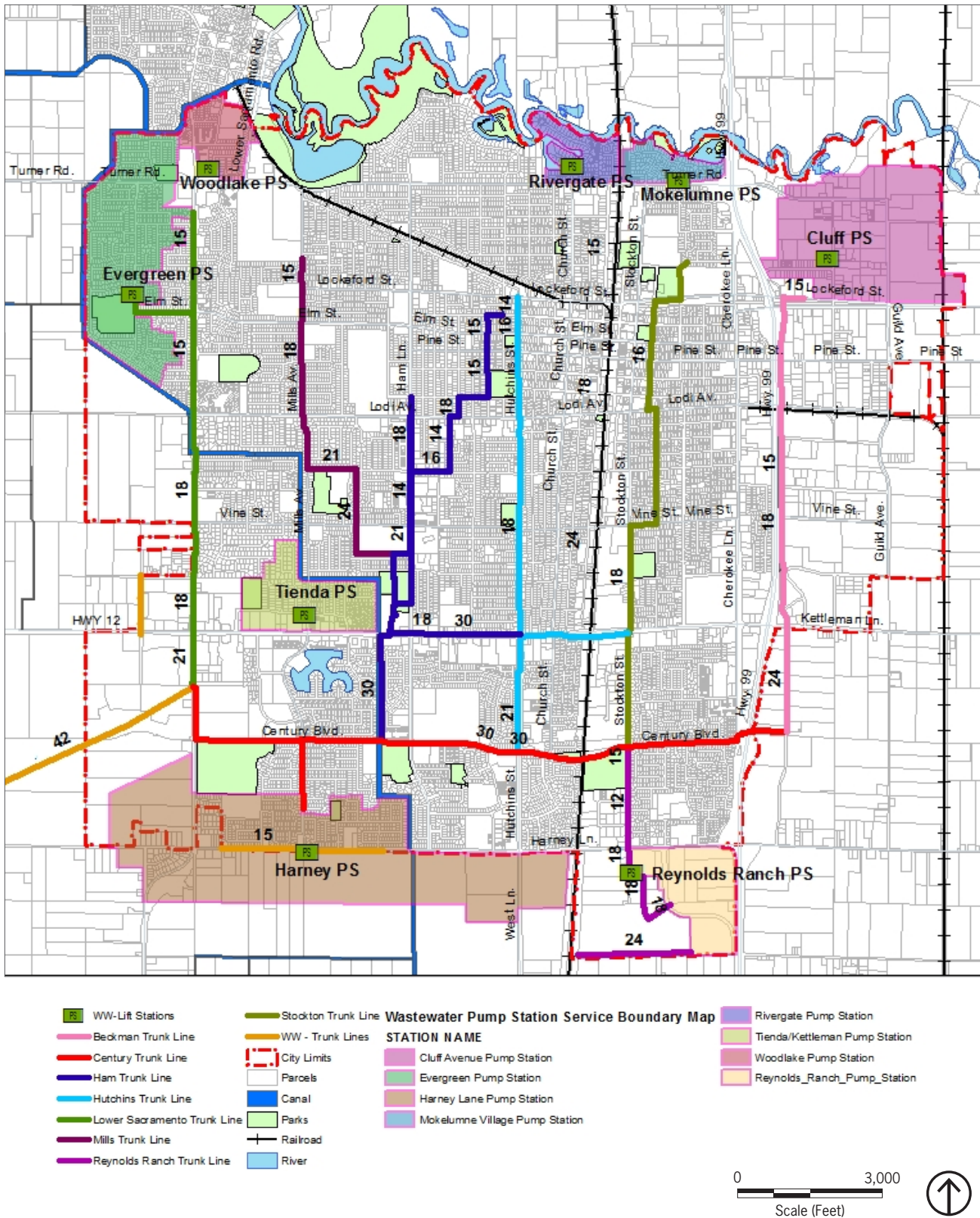
The City of Lodi Wastewater Utility operates within the City's public works department and provides wastewater collection and treatment for the incorporated area of the City of Lodi. The Wastewater Utility operates the White Slough Water Pollution Control Facility (WWTP), approximately six miles west of the City, which treats the City's wastewater to tertiary levels. The department also maintains the City's wastewater pipelines and lift stations that convey wastewater to the WWTP and the storm drain pipelines and lift stations that convey storm water to various points of discharge (Lodi 2023a).

Wastewater collection and treatment in the unincorporated Woodbridge community in the City's SOI is managed by the Woodbridge Sanitary District. Other unincorporated areas in the SOI lack sanitary sewer infrastructure and use individual or community septic systems (San Joaquin 2014).

Wastewater Collection

The City's wastewater system currently consists of about 195 miles of collection system pipelines ranging in sizes from 4 to 42 inches in diameter, with 6 inches being the predominant size. There are six wastewater trunk lines (Hutchins Street, Mills Avenue, Ham Lane, Lower Sacramento Road, Stockton Street/Washington Street, Beckman Road) serving the City that generally flow from the north to the south. The six trunk lines connect to the Century Boulevard Trunk Line that flows east to west, and into the 42-inch trunk sewer/outfall pipeline that conveys flows southwest to the City's WWTP (Lodi 2022). All wastewater flow are conveyed to this 42-inch outfall line which has an existing peak flow of 14.21 million gallons per day (mgd) and a 19.0 mgd capacity (Lodi 2012a).

Within its domestic system, the Wastewater Utility maintains 24,000 service laterals, 3,250 manholes, and 8 domestic pumping stations. This includes 5 stations in the northern area of the City: the Evergreen Pump Station, Woodlake Pump Station, Rivergate Pump Station, Mokelumne Pump Station, and Cluff Pump Station, and 3 stations in the southern area of the City: Tienda Pump Station, Harney Lane Pump Station, and Reynolds Ranch Pump Station (Lodi 2022). The Wastewater Utility also operates and maintains an industrial wastewater collection system, including 10 miles of industrial wastewater collection mains, 83 manholes, 4.5 miles of 30-inch-diameter industrial waste outfall line, a pumping station, and 7 service laterals (Lodi 2023a). The City's existing wastewater infrastructure backbone is shown on Figure 4.10-1, *Existing Wastewater Trunk Lines and Pump Stations*.



Source: City of Lodi, 2012.

Figure 4.10-1
Existing Wastewater Trunk Lines and Pump Stations

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Wastewater Treatment

White Slough Water Pollution Control Facility

The City's WWTP was constructed in 1966 and serves the wastewater treatment needs of all development in the City. The WWTP has undergone two expansions to increase its treatment capacity from 5.8 million gallons per day (mgd) to its current average dry weather flow capacity of 8.5 mgd (Lodi 2022). The WWTP's peak flow treatment capacity is 16.3 mgd (Lodi 2017). The WWTP treats wastewater from both municipal/domestic sources and industrial sources. Domestic wastewater is either treated to tertiary, UV-disinfected standards or secondary, undisinfected levels. The industrial wastewater, the majority of which comes from a fruit canning facility, is blended with treated flows and is stored for agricultural irrigation of neighboring City-owned land (Lodi 2021b).

The WWTP treated an average domestic flow of 1.7 billion gallons per year (4.6 mgd) and an average industrial flow of 180 million gallons per year (0.49 mgd) in 2023 (Lodi 2024a). The City discharges all wastewater effluent that is not used for recycled water into Dredger Cut, a slough flowing into the Delta, under the WWTP's NPDES permit. In 2020, 1,042 acre-feet (af) of tertiary-treated and UV-disinfected effluent was discharged into Dredger Cut from November through February (Lodi 2021b).

Recycled Water

The WWTP produces 4,746 acre-feet per year (afy) of recycled water that is used for agricultural land irrigation, fishpond replenishment, and two power-generating facilities, on the 1,040 acres of City-owned land surrounding the WWTP. The City anticipates that the demand and supply of recycled water will remain constant as the City develops (Lodi 2021b).

Capital Improvement Projects

The City's 2024-2025 Annual Budget identifies several wastewater-related capital improvement projects that primarily aim to repair and upgrade the City's existing wastewater utility infrastructure. Wastewater utility projects are mostly funded by charges for service and development impact fees. The following are the major ongoing wastewater utility projects related to wastewater treatment and collection projected for 2025-2030.

- **Industrial/Domestic Pump Replacements White Slough.** This project will replace three existing domestic pumps and motors and one industrial pump and motor.
- **Wastewater Taps and System Relocation.** This project would repair and upgrade various components of existing wastewater system including wastewater taps (individual customer service) and wastewater main relocation. These would be new improvements that would not be previously included in the City's Wastewater Master Plan. The locations of the repairs and upgrades would be determined once additional analysis is performed. (Lodi 2024b)

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No major expansions to wastewater collection service or wastewater treatment capacity are identified in the City's 2025-2030 Capital Improvement Program. However, the City's Wastewater Master Plan outlines additional improvements that the City anticipates will be needed to serve the buildout of the 2010 General Plan. This includes a second outfall pipeline to serve increased flows from the discharge point at Lower Sacramento Road between Kettleman Lane and Century Boulevard to the WWTP. The existing 42-inch outfall pipeline has an existing peak flow of 14.21 mgd that is anticipated to increase up to 20.12 mgd at buildout of the 2010 General Plan, exceeding its 19.0 mgd capacity (Lodi 2012).

The Wastewater Master Plan also anticipated that two new trunk lines will be needed to serve new development in the western and southern portions of the City. The trunk line in the western portion of the City that extends from Lodi Avenue, south along Westgate Drive and connects into the existing outfall line, has been constructed (Lodi 2024c). The South Wastewater Trunk Line that is currently funded under the City's IMFP has not been constructed and the timing for these improvements is currently unknown according to the City's 2023 Mitigation Fee Program Report (Lodi 2023b). This trunk line would serve the southern portion of the City and would extend from one-half mile east of State Route 99, westward to Lower Sacramento Road, north along Lower Sacramento Road/Extension Road, and west along Harney Lane to Davis Road where it would connect to the existing outfall line (Lodi 2012a).

4.10.1.2 THRESHOLDS OF SIGNIFICANCE

As lead agency, the City has determined that a project would normally have a significant effect on the environment if it would:

1. U-1 Require or result in the relocation or construction of new or expanded water, wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
2. U-2 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.

4.10.1.3 PROPOSED GENERAL PLAN POLICIES

The following goals, policies, and actions from the proposed General Plan are applicable to wastewater conveyance and treatment services. These policies have not been modified as part of the 2024 General Plan Update.

- **Policy GM-G2:** Provide infrastructure—including water, sewer, stormwater, and solid waste/recycling systems—that is designed and timed to be consistent with projected capacity requirements and development phasing.
- **Policy GM-P5:** Update impact fee system to balance the need to sufficiently fund needed facilities and services without penalizing multifamily housing or infill development.

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- **Policy GM-P8:** Ensure that public facilities and infrastructure—including water supply, sewer, and stormwater facilities—are designed to meet projected capacity requirements to avoid the need for future replacement and upsizing, pursuant to the General Plan and relevant master planning.
- **Policy GM-P9:** Coordinate extension of sewer service, water service, and stormwater facilities into new growth areas concurrent with development phasing. Decline requests for extension of water and sewer lines beyond the city limit prior to the relevant development phase and approve development plans and water system extension only when a dependable and adequate water supply for the development is assured.
- **Policy GM-P10:** Develop new facilities and rehabilitate existing facilities as needed to serve existing development and expected development, in accordance with the General Plan and relevant infrastructure master plans.
- **Policy GM-P11:** Prepare master plan documents as necessary during the planning period to address the infrastructure needs of existing and projected growth, and to determine appropriate infrastructure provision for each phase. Existing master plan documents should be used until new master plans are developed, and updates should occur as follows:
 - A sanitary sewer system master plan should be undertaken soon after General Plan adoption. In particular, this master plan should address how to best provide sewer service for the growth on the east side of the city and for infill development, and to determine if additional wastewater flows will need to be diverted into the proposed South Wastewater Trunk Line.
 - A citywide stormwater master plan should be prepared soon after General Plan adoption to confirm or revise existing planning studies.
 - A White Slough Water Pollution Control Facility master plan should be completed during the early stages of Phase 1, most likely in 2013 or 2014.
 - A recycled water master plan was prepared in May 2008 and is current as of 2009. It may be appropriate to update this document when the next WSWPCF master plan is prepared, in 2013 or 2014, to evaluate the feasibility of constructing a scalping plant to provide recycled water for use within the city.
 - A potable water supply and distribution master plan is not urgently needed, as of 2009. Future planning should be completed as necessary.
 - The Urban Water Management Plan should be updated on a five year basis in compliance with State of California mandated requirements. Future plans should be developed in 2010, 2015, 2020, 2025, and 2030.
- **Policy GM-P18:** Explore a program of complete wastewater reclamation and reuse at the White Slough Water Pollution Control Facility.

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- **Policy GM-P19:** Encourage the use of tertiary treated wastewater for irrigation of agricultural lands, large landscaped areas, and recreation/open space areas within close proximity to the White Slough Water Pollution Control Facility.

4.10.1.4 ENVIRONMENTAL IMPACTS

UTIL-1 **As with the 2010 General Plan, the proposed project would not result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. (Threshold-1)**

The 2009 Certified EIR determined that buildout of the 2010 General Plan would exceed the existing capacity of the existing 42-inch outfall pipeline and the treatment capacity of the City's WWTP, therefore requiring new facilities to accommodate the increased demand. Impacts were, however, considered less than significant due to the General Plan policies that require the provision of infrastructure to accommodate new development. Table 3.17-7, *Required Sewer Infrastructure Under the Proposed General Plan*, in the 2009 Certified EIR lists the anticipated improvements needed to meet demand under the 2010 General Plan by its horizon year of 2030.

The estimated wastewater generation under buildout of the existing 2010 General Plan and proposed 2024 General Plan are shown in Table 4.10-1, *Comparison of Wastewater Generation between Approved Project and Proposed Project (Gallons/Day)*. The average and peak daily flows were calculated for the approved project within the 2009 Certified EIR, but they have been recalculated in this SEIR with the same methodology used for the proposed project for the purposes of comparing the two projects.

TABLE 4.10-1 COMPARISON OF WASTEWATER GENERATION BETWEEN APPROVED PROJECT AND PROPOSED PROJECT (GALLONS/DAY)

	City	SOI	City + SOI
Approved Project (2010 General Plan Buildout)			
Residential	6,958,209	1,297,613	8,255,822
Commercial	345,409	24,702	370,110
Industrial	359,366	24,139	383,506
Total Wastewater Generation	7,662,984	1,346,453	9,009,438
Proposed Project (2024 General Plan Buildout)			
Residential	6,958,209	1,202,861	8,161,070
Commercial	345,225	21,809	367,034
Industrial	351,171	23,760	374,931
Total Wastewater Generation	7,654,605	1,248,430	8,903,035
Net Change (Proposed – Approved)			
Residential	0	-94,752	-340,281

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	City	SOI	City + SOI
Commercial	-184	-2,893	-4,867
Industrial	-8,196	-379	18,767
Total Wastewater Generation	-8,379	-98,023	-326,381

Notes: See Chapter 3, *Project Description*, for additional information about the buildout estimates for the Approved Project and Proposed Project. Residential water use is based on a use factor of 110 gallons/capita/day from the Water Resources Control Board's Water Conservation and Production Reports for water use in Lodi averaged over 12 months (April 2022–March 2023) (SWRCB 2024). Wastewater use is estimated to be 90 percent of the total water use.

Commercial water use is based on a factor of 2,750 gallons/acre/day, and industrial water use is based on a factor of 2,200 gallons/acre/day (Lodi 2012a).

Due to the decrease in buildout capacity between the approved project and proposed project, the proposed project would result in a decrease of approximately 0.33 mgd of average daily flows when compared to the 2010 General Plan. Due to the decrease in overall buildout capacity between the approved project and proposed project, the proposed project would not require additional sewer infrastructure beyond what was identified for the approved project. As shown in Table 3-1, *Existing General Plan and Proposed Land Use Designation Acres*, and Figure 3-3, *Proposed Land Use Designations in Lodi*, the land use changes associated with the proposed project are primarily targeted at increasing density in the City's developed areas, particularly the downtown area. The proposed 2024 General Plan also does not propose the expansion of municipal services to areas that were not contemplated within the 2010 General Plan.

New development under the proposed project would continue to conform with the City's existing procedures for the approval and expansion of wastewater facilities. This includes compliance with Chapter 13.12 of the Lodi Municipal Code with respect to extension and construction of new sewer service. Applicants seeking the extension of sewer service are required to submit an application to the director of Public Works and prepare engineering plans in accordance with the City's Public Improvement Design Standards if the application is approved. New development would also be subject to sewerage service capacity fees in addition to the City's Wastewater Treatment development impact fee and South Wastewater Trunk Line fee, if applicable. These fees would help to ensure that wastewater conveyance and treatment infrastructure is funded and available for new development. New development would also comply with Policy GM-P9 in the 2024 General Plan, which states that sewer service shall only be approved if dependable and adequate water supply for the development is ensured.

Per Table 3.13-7 in the 2009 Certified EIR, the City has identified the facilities needed to meet the sewer demands of development under the approved project. These infrastructure projections have since been supplemented and revised by the 2012 Wastewater Master Plan which identifies the need to expand the capacity of the existing 42-inch outfall pipeline and construct two new trunk lines to serve the western and southern portions of the City. Currently, the City does not anticipate any expansions to the WWTP or outfall pipeline to address capacity deficiencies. The South Wastewater Trunk Line receives funding through the IMFP and would be constructed when necessary to serve cumulative demand. The proposed project would not require the construction of any additional infrastructure when compared to the approved project. Therefore, the construction of any new infrastructure needed to serve the buildout of the 2024 General Plan would not result in any new environmental impacts or impacts of increased magnitude when compared to those identified in the 2009 Certified EIR. Impacts would be less than significant.

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Significance Without Mitigation: Less than significant.

UTIL-2	As with the 2010 General Plan, the proposed project would 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. (Threshold-2)
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The 2009 Certified EIR determined that the 2010 General Plan could result in average dry weather and peak wet weather flows that exceed the capacity of the City's WWTP. The City's 2001 Wastewater Master Plan identified improvements needed for the WWTP in order to increase its capacity to 12 mgd. The proposed project would result in an average daily flow of approximately 8.9 mgd, which would exceed the WWTP's average dry weather flow capacity of 8.5 mgd. However, because the approved project would result in a higher daily average flow of 9 mgd, which is approximately 1.2 percent higher than the proposed project, no additional impacts to wastewater treatment capacity would result from the proposed project. Should expansion of the WWTP be required to meet the demand of the proposed project, the City would construct these improvements in accordance with the Wastewater Master Plan. New development under the 2024 General Plan would also be required to comply with 2024 General Plan Policy GM-G2, which requires infrastructure to be designed and timed consistent with the projected capacity requirements and phasing of development. Policy GM-P10 also directs new facilities to be developed in accordance with the General Plan and Wastewater Master Plan.

Additionally, new development would be subject to the California Green Building Standards for water conservation, which would result in progressively less indoor water consumption over the course of the 2024 General Plan buildout. This would result in less wastewater flows to the WWTP than anticipated in this analysis. Therefore, the proposed project would not result in new or increased impacts with respect to WWTP capacity when compared to the impacts identified in the 2009 Certified EIR. Therefore, impacts would remain less than significant.

Significance Without Mitigation: Less than significant.

4.10.1.5 CUMULATIVE IMPACTS

UTIL-3	As with the 2010 General Plan, the proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to wastewater.
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The scope for cumulative impacts to wastewater treatment infrastructure is the Wastewater Utility's service area, which is the City of Lodi. The impacts discussed in Impacts UTIL-1 and UTIL-2 above consider all development projected to occur within the City by 2045 and conservatively assumes that the City will annex all land in its SOI by this horizon year. Therefore, as determined above, the proposed project would not

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result in any new or increased impacts to wastewater conveyance and treatment infrastructure when compared to the approved project. Because the development capacity under the proposed project is less than that of the approved project, all future development under the proposed project has been assumed within the existing planning documents that guide the City's development and maintenance of wastewater infrastructure including the SSMP and Wastewater Master Plan. Continued compliance with the City's regulations and proposed General Plan policies would ensure that impacts are not cumulatively considerable.

Significance Without Mitigation: Less than significant.

4.10.2 WATER SUPPLY AND DISTRIBUTION

4.10.2.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal Regulation

Federal Safe Drinking Water Act

The Safe Drinking Water Act, the principal federal law intended to ensure safe drinking water to the public, was enacted in 1974 and has been amended several times since it came into law. The Act authorizes the U.S. Environmental Protection Agency to set national standards for drinking water, called the National Primary Drinking Water Regulations, to protect against both naturally-occurring and man-made contaminants. These standards set enforceable maximum contaminant levels in drinking water and require all water providers in the United States to treat water to remove contaminants, except for private wells serving fewer than 25 people. In California, the State Water Resources Control Board conducts most enforcement activities. If a water system does not meet standards, it is the water supplier's responsibility to notify its customers.

America's Water Infrastructure Act of 2018

America's Water Infrastructure Act (AWIA), signed into law on October 23, 2018, authorizes federal funding for water infrastructure projects, expands water storage capabilities, assists local communities in complying with the Safe Drinking Water Act and Clean Water Act, reduces flooding risks for rural, western, and coastal communities, and addresses significant water infrastructure needs in tribal communities (Barasso 2018). Additionally, AWIA requires that drinking water systems that serve more than 3,300 people develop or update risk assessments and emergency response plans, which must be certified by the EPA within the deadline specified by the AWIA.

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State Regulation

SWRCB Division of Drinking Water

The California Division of Drinking Water regulates public water systems within California; oversees water recycling projects; permits water treatment devices; and supports and promotes water system security. The Division of Financial Assistance provides funding opportunities for drinking water system improvements; provides support for small water systems and for improving technical, managerial, and financial capacity; and certifies drinking water treatment and distribution operators. The Field Operations Branch of the Division of Drinking Water is responsible for the enforcement of the federal and California Safe Drinking Water Acts and the regulatory oversight of approximately 7,500 public water systems to ensure the delivery of safe drinking water to all Californians. In this capacity, Field Operations Branch staff perform field inspections, issue operating permits, review plans and specifications for new facilities, take enforcement actions for noncompliance with laws and regulations, review water quality monitoring results, and support and promote water system security.

Urban Water Management Planning Act (Senate Bills 610 and 221)

The California Urban Water Management Planning Act and Section 10620 of the Water Code require that all urban water suppliers in California that provide water to more than 3,000 customers or supply more than 3,000 afy¹ to prepare and adopt an Urban Water Management Plan (UWMP) and update it every five years. The act is intended to support efficient use of urban water supplies. It requires the UWMP to compare water supply and demand over the next 20 years for normal years, single dry years, and multiple dry years and to determine current and potential recycled water uses.

Senate Bill (SB) 610 and SB 221 were enacted to 1) ensure better coordination between local water supply and land use decisions and 2) confirm that there is an adequate water supply for new development. The following projects that are subject to the California Environmental Quality Act (CEQA) are required to prepare a Water Supply Assessment (WSA):

- Residential developments consisting of more than 500 dwelling units.
- Shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- Commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- Hotel or motel, or both, having more than 500 rooms.
- Industrial, manufacturing, or processing plant or industrial park planned to employ more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.

¹ One acre-foot is the amount of water required to cover one acre of ground (43,560 square feet) to a depth of one foot.

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- Mixed-use project that includes one or more of the projects specified above.
- Project that would demand an amount of water equivalent to, or greater than, the amount of water required for 500 dwelling units.

SB 221 requires written verification that there is sufficient water supply available for new residential subdivisions that include over 500 dwelling units. The verification must be provided before commencement of construction for the project.

Sustainable Groundwater Management Act of 2014

In the midst of a major drought in 2014, a three-bill legislative package was signed into law, collectively known as the Sustainable Groundwater Management Act (SGMA). The Governor's signing message states "a central feature of these bills is the recognition that groundwater management in California is best accomplished locally." Under SGMA, local and regional agencies in groundwater basins that are designated as medium and high priority must form groundwater sustainability agencies (GSAs) that oversee the preparation and implementation of groundwater sustainability plans (GSPs).

The City of Lodi overlies the Eastern San Joaquin Groundwater Subbasin of the San Joaquin Valley Groundwater Basin. This groundwater basin is not adjudicated and is managed under the Eastern San Joaquin GSP, last updated in November 2019 by the Eastern San Joaquin Groundwater Authority (ESJGWA). The ESJGWA is composed of 16 GSA,s including the City.

Water Conservation Act of 2009

The Water Conservation Act of 2009 (SB X7-7) requires all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per capita water use by 20 percent by 2020, with an interim goal of a 10 percent reduction in per capita water use by 2015. Effective in 2016, urban retail water suppliers who do not meet the water conservation requirements established by this bill are not eligible for State water grants or loans. The SB X7-7 requires that urban water retail suppliers determine baseline water use and set reduction targets according to specified standards. Demonstration of compliance with this regulation is a required component of each water purveyor's 2020 UWMP. The City of Lodi is in compliance with its target reduction.

2018 Water Conservation Legislation

In 2018, the California Legislature enacted two policy bills (SB 606 and AB 1668) to establish long-term improvements in water conservation and drought planning to adapt to climate change and longer and more intense droughts in California (DWR 2021). The Department of Water Resources (DWR) and SWRCB will develop new standards for:

- Indoor residential water use
- Outdoor residential water use

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- Commercial, industrial, and institutional water use for landscape irrigation with dedicated meters
- Water loss

Urban water suppliers are required to stay within annual water budgets based on their standards for their service areas, and to calculate and report their urban water use objectives in an annual water use report. Based on recent legislation (SB 1157), the California Water Code defines a 55-gallon-per-person daily standard for indoor residential use until 2025, at which time it decreases to 47 gallons, and further decreases to 42 gallons by 2030.

The legislation also includes changes to UWMP preparation requirements. These changes include additional requirements for Water Shortage Contingency Plans, expansion of dry year supply reliability assessments to a five-year drought period, establishment of annual drought risk assessment procedures and reporting, and new conservation targets, or “annual water use objectives,” which require retailers to continue to reduce water use beyond the 2020 SB X7-7 targets.

Mandatory Water Conservation

Following the declaration of a state of emergency on July 15, 2014, due to drought conditions, the SWRCB adopted Resolution No. 2014-0038 for emergency regulation of statewide water conservation efforts. These regulations, which went into effect on August 1, 2014, were intended to reduce outdoor urban water use and have all California households voluntarily reduce their water consumption by 20 percent. Water companies with 3,000 or more service connections were required to report monthly water consumption to the SWRCB. The SWRCB readopted the regulations several times, most recently requiring local water agencies to implement Level 2 drought contingency plans. In March 2023, Governor Newsom announced the lifting of some of the drought restrictions following a wet winter, including the Level 2 demand reduction actions.

However, there are portions of the water conservation emergency regulations that remain in effect. These include wasteful water use practices that are still in effect: 1) the application of potable water to outdoor landscapes in a manner that causes excess runoff; 2) the washing of vehicles without an automatic shut-off nozzle; 3) the application of potable water to driveways and sidewalks; 4) the use of potable water in nonrecirculating ornamental fountains; and 5) the application of potable water to outdoor landscapes during and within 48 hours after at least 0.25 inch of rainfall. In addition, watering decorative grass in commercial, industrial, and institutional areas is currently prohibited but is set to expire next June. However, a new bill (AB 1572), which is being decided in the California legislature, would make this ban permanent, unless these areas are using recycled water. Urban water suppliers are still required to submit monthly water monitoring reports to the SWRCB.

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Water Conservation in Landscaping Act of 2006

The Water Conservation in Landscaping Act (AB 1881) requires cities and counties to adopt the State of California's Model Water Efficient Landscape Ordinance (MWELO) or adopt a comparable landscape water conservation ordinance that is at least as effective as the State's MWELO in conserving water.

The MWELO was revised in July 2015 via Executive Order B-29-15 to address the ongoing drought and to build resiliency for future droughts. The 2015 revisions to the MWELO increased water efficiency standards for new and retrofitted landscapes through more efficient irrigation systems, greywater usage, and on-site stormwater capture and by limiting the portion of landscapes that can be covered in turf. Each city and county is required to submit annual reports to DWR that document how the agency is achieving compliance with the State MWELO and how many projects were subject to the ordinance during the annual reporting period.

The City of Lodi adopted water efficient landscape requirements in Section 17.30.070, Water Efficient Landscape Requirements, of the Lodi Municipal Code. The ordinance applies to all new and rehabilitated landscape projects that require a building or grading permit, plan check, design review, or utilities certificate.

California Water Code

The Water Code states that the water resources of the State must be put to beneficial use and that waste or unreasonable use of water be prevented. The code is divided into several sections that include provisions regarding water quality, formation of irrigation districts and water districts, safe drinking water, and water supply and infrastructure improvements.

California Plumbing Code

The latest version of the California Plumbing Code was issued in 2022 and became effective as of January 1, 2023. The code is updated on a three-year cycle. It specifies technical standards for the design, materials, workmanship, and maintenance of plumbing systems. One of the purposes of the plumbing code is to prevent conflicting plumbing codes within local jurisdictions. Among many topics covered in the code are water fixtures, potable and non-potable water systems, and recycled water systems. The City of Lodi adopts the California Plumbing Code under Lodi Municipal Code Chapter 15.12, Plumbing Code.

California Building Code: CALGreen

The California Building Standards Commission adopted the nation's first green building standards in July 2008, the California Green Building Standards Code, also known as CALGreen. CALGreen applies to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure in California. The code establishes building standards for sustainable site development, including water efficiency and water conservation measures that typically reduce water consumption by 20 percent.

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CALGreen is updated every three years to allow for consideration and possible incorporation of new low flow plumbing fixtures and water efficient appliances. The mandatory provisions of CALGreen became effective January 1, 2011, and the latest 2022 version became effective on January 1, 2023. The building efficiency standards are enforced through the local building permit process. The City of Lodi has regularly adopted each new CALGreen update under Chapter 15.18, Green Building Code.

California Health and Safety Code

A portion of the State Health and Safety Code is dedicated to water issues, including testing and maintenance of backflow prevention devices, coloring of pipes carrying recycled water, and programs addressing cross-connection control by water users.

Regional Regulation

Eastern San Joaquin Groundwater Subbasin Sustainability Plan

The City has historically relied on groundwater for the majority of its water supply. The Lodi service area overlies the Eastern San Joaquin Groundwater Subbasin of the San Joaquin Valley Groundwater Basin, which is managed under the Eastern San Joaquin Groundwater Sustainability Plan (ESJGSP). The goal of the ESJGSP is to achieve groundwater basin sustainability by implementing water supply projects that either replace groundwater use or supplement groundwater supplies to offset current pumping and increase recharge. For example, the ESJGSP documented a project for the expansion of the Lodi Surface Water Treatment Plant to allow for an additional 10 million gallons per day (mgd) capacity of surface water treatment. The project relies on the securing of additional raw surface water and is projected to be completed between 2030 and 2040 if current treatment plant capacity is exceeded (ESJGA 2022).

Integrated Regional Water Management Plan

The Eastern San Joaquin Integrated Regional Water Management Plan defines and integrates key water management strategies and establishes a course of actions for the implementation of a comprehensive solution for water supplies in Eastern San Joaquin County. This comprehensive solution, called the Eastern San Joaquin Integrated Conjunctive Use Program, is a prioritized set of projects and actions that conjunctively manage surface water and groundwater supplies in a manner that ensures the social, economic, and environmental sustainability of this community. The Greater San Joaquin County Regional Water Coordinating Committee (Coordinating Committee) was established in 2019 to develop and implement the plan, replacing the Eastern San Joaquin Groundwater Basin Authority, which has been inactive since 2017. As a member of the Coordinating Committee, the City participated in the development of the plan and its latest 2020 addendum adopted in February 2021 (GSJCRWCC 2021).

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Local Regulation

City of Lodi 2020 Urban Water Management Plan

Every five years the City of Lodi prepares a UWMP as required by the California Urban Water Management Planning Act. The purpose of preparing the UWMP is to ensure the efficient use of available water supplies, describe and evaluate the existing water system and historical and projected water use, evaluate current and projected water supply reliability, describe and evaluate demand management measures, and provide water shortage contingency plans as required by the UWMP Act. It provides an overview of Lodi's water supply sources, usage, constraints, and reliability; projected water demand; demand management and conservation; wastewater, and recycled water; a comparison of supply and demand; and a water shortage contingency plan. The most recent UWMP was completed in 2020 and considers water resources through 2045 (Lodi 2021b).

City of Lodi Water Master Plan

The City of Lodi Water Master Plan was first adopted in 1990 and was last updated in 2012 to implement a policy in the 2010 General Plan Growth Management and Infrastructure Element. The 2012 Water Master Plan defines the level of service, presents design criteria, analyzes service demands, and considers alternative facilities plans.

City of Lodi Recycled Water Master Plan

The City of Lodi's Recycled Water Master Plan was adopted in 2008 and describes the City's approach to optimizing the use of recycled water in the Lodi service area. It evaluated existing potential customers for recycled, availability of water supplies, the financial feasibility of implementing recycled water projects and infrastructure. Through the evaluation, it was determined that there were no economically feasible projects at this time without additional outside funding. The 2020 UWMP notes that the City will continue to evaluate the potential for grant funding of recycled water projects, and/or seek opportunities to implement portions of larger projects as they become economically feasible. However, the City does not have any current plans to utilize financial incentives for recycled water use (Lodi 2021b).

City of Lodi Municipal Code

The City of Lodi Municipal Code is a primary tool that shapes physical development in the City. The municipal code includes various directives pertaining to water supply and conservation issues. Also included are requirements for new development with respect to water service and fire safety. Selected municipal code sections pertaining to water supply and conservation issues are listed.

- **Chapter 13.08, Article 1, Generally:** This article details the charging of water rates for development within and outside the City. Section 13.08.020 states that water service outside of the City shall be 150 percent of the rate of service within the City. Section 13.08.060 establishes additional connection and

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monthly service fees for single-family development that requires automatic fire protection systems pursuant to state law and Lodi Municipal Code Chapters 15.04 or 15.40.

- **Chapter 13.08, Article 2, Main Extensions:** This article establishes the requirement for new water service to submit an application to the public works director. Should extension of a water main be required, it shall be installed at the applicant's expense in accordance with engineering plans furnished by applicant and approved by the public works director.
- **Chapter 13.08, Article 3, Water Conservation:** This article outlines the allowed watering/days hours and prohibits the waste of water. It also details the enforcement procedures and penalties for water waste.
- **Title 15, Chapter 15.40, On-Site Fire Protection:** This chapter prescribes the City's requirements for adequate fire flow in new building construction. It also requires building permit applications to be approved by the City fire chief.
- **Title 17, Chapter 17.30, Landscaping:** Section 17.30.070 outlines the City's water efficient landscaping requirements for development. For example, new construction projects with an aggregate landscape area equal to or greater than five hundred square feet require a building or landscape permit, plan check or design review approval.
- **Title 17, Chapter 17.50, Subdivision Design and Improvement Requirements:** This chapter includes Section 17.50.120, which states the requirement for subdividers to submit a master water plan conforming to the City's master water plan for the entire area covered by the proposed tentative map.

City of Lodi Impact Fee Mitigation Program

The City levies a Water Impact Mitigation Fee that was first adopted in 1991 and last revised in 2021 as part of the City of Lodi's Mitigation Fee Program Nexus Study. As identified in the 2021 study, the IMFP's water service fees are used to pay back the construction of the Surface Water Treatment Plant (SWTP) in addition to the funding of future improvements to the Plant. The fees also fund new water supply facilities that have been identified by the City's Capital Improvement Program which include construction a 1.5 million-gallon water storage tank (referred to as the Southwest Water Tank in the City's 2024-2025 Annual Budget) and one additional groundwater well needed to ensure adequate water system pressure and fire flows during peak water use periods. The most recent water fee adopted for 2023 ranged from \$2,093 for 5/8-inch water meter connections to \$239,547 for 10-inch water meter connections (Lodi 2021a).

City of Lodi 2010 General Plan

The existing City of Lodi General Plan includes the following policies in the Growth Management Element related to water supply and distribution:

- **Policy GM-G2:** Provide infrastructure—including water, sewer, stormwater, and solid waste/recycling systems—that is designed and timed to be consistent with projected capacity requirements and development phasing.

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- **Policy GM-P5:** Update impact fee system to balance the need to sufficiently fund needed facilities and services without penalizing multifamily housing or infill development.
- **Policy GM-P8:** Ensure that public facilities and infrastructure—including water supply, sewer, and stormwater facilities—are designed to meet projected capacity requirements to avoid the need for future replacement and upsizing, pursuant to the General Plan and relevant master planning.
- **Policy GM-P9:** Coordinate extension of sewer service, water service, and stormwater facilities into new growth areas concurrent with development phasing. Decline requests for extension of water and sewer lines beyond the city limit prior to the relevant development phase and approve development plans and water system extension only when a dependable and adequate water supply for the development is assured.
- **Policy GM-P10:** Develop new facilities and rehabilitate existing facilities as needed to serve existing development and expected development, in accordance with the General Plan and relevant infrastructure master plans.
- **Policy GM-P11:** Prepare master plan documents as necessary during the planning period to address the infrastructure needs of existing and projected growth, and to determine appropriate infrastructure provision for each phase. Existing master plan documents should be used until new master plans are developed, and updates should occur as follows:
 - A sanitary sewer system master plan should be undertaken soon after General Plan adoption. In particular, this master plan should address how to best provide sewer service for the growth on the east side of the city and for infill development, and to determine if additional wastewater flows will need to be diverted into the proposed South Wastewater Trunk Line.
 - A citywide stormwater master plan should be prepared soon after General Plan adoption to confirm or revise existing planning studies.
 - A White Slough Water Pollution Control Facility master plan should be completed during the early stages of Phase 1, most likely in 2013 or 2014.
 - A recycled water master plan was prepared in May 2008 and is current as of 2009. It may be appropriate to update this document when the next WSWPCF master plan is prepared, in 2013 or 2014, to evaluate the feasibility of constructing a scalping plant to provide recycled water for use within the city.
 - A potable water supply and distribution master plan is not urgently needed, as of 2009. Future planning should be completed as necessary.
 - The Urban Water Management Plan should be updated on a five year basis in compliance with State of California mandated requirements. Future plans should be developed in 2010, 2015, 2020, 2025, and 2030.

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- **Policy GM-P12:** Require water conservation in both City operations and private development to minimize the need for the development of new water sources and facilities. To the extent practicable, promote water conservation and reduced water demand by:
 - Requiring the installation of non-potable water (recycled or gray water) infrastructure for irrigation of landscaped areas over one acre of new landscape acreage, where feasible. Conditions of approval shall require connection and use of nonpotable water supplies when available at the site.
 - Encouraging water-conserving landscaping, including the use of drought-tolerant and native plants, xeriscaping, use of evapotranspiration water systems, and other conservation measures.
 - Encouraging retrofitting of existing development with water-efficient plumbing fixtures, such as ultra-low-flow toilets, waterless urinals, low-flow sinks and showerheads, and water-efficient dishwashers and washing machines.
- **Policy GM-P13:** Support on-site gray water and rainwater harvesting systems for households and businesses. The City should develop a strategy for the legal, effective, and safe implementation of gray water and rainwater harvesting systems, including amendment of the Building Code as appropriate to permit gray water and provision of technical assistance and educational programming to help residents implement gray water and rainwater harvesting strategies.
- **Policy GM-P14:** Continue to implement the Water Meter Retrofit Program (consistent with State requirements as indicated in AB 2572), whereby all existing non-metered connections would be retrofitted with a water meter. This program is expected to be completed in 2015.
- **Policy GM-P15:** Require water meters in all new and rehabilitated development.
- **Policy GM-P16:** Monitor water usage and conservation rates resulting from the meter progress to verify if water demand assumptions are correct. If actual usage and conservation rates vary from planning assumptions, reassess requirements for future water resources.

Existing Conditions

The City of Lodi Water Utility (LWU) is the sole water purveyor for the City and is operated by the City. The City's water service area is contiguous with City boundaries and covers approximately 13.6 square miles (Lodi 2021b).

The unincorporated portions of the City's SOI are served either by maintenance districts or private well systems for domestic water supply and irrigation districts for agricultural water supply. These include the Mokelumne Acres Maintenance District in the northwest portion of the City's SOI which serves the unincorporated community of Woodbridge with supplies from four groundwater wells and the Sunnyside Estates Maintenance District which serves the 21 properties in the southwest portion of the SOI through supplies purchased from the LWU. Irrigation districts whose service areas overlap with the City and its SOI include the Woodbridge Irrigation District (WID), which serves hundreds of acres of agricultural land to the west of the City, and the Northern San Joaquin Water Conservation District, which serves all agricultural

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land in the northeastern portion of San Joaquin County, including a majority of the eastern portion of the City (San Joaquin County 2014).

Water Supply

As of 2020, LWU serves 26,230 municipal connections and delivers approximately 13,978 af to its customers. These primarily include residential, government, and commercial customers in the City, though the LWU also sells water to Sunnyside Estates Maintenance District (19 af in 2020). LWU's water supply includes local groundwater from the Eastern San Joaquin Subbasin and surface water supplies from the Mokelumne River purchased from WID. The City's primary source of water is groundwater that it pumps using 28 groundwater production wells distributed throughout the water service area. Surface water is treated through the Lodi SWTP. The City's White Slough WWTP also produces recycled water that is used for cultivation and harvesting of feed and fodder crops on land in the vicinity of the WWTP (Lodi 2021a).

Purchased/Imported Water

In May 2003, the City entered into an agreement with WID to purchase 6,000 afy of surface water from the Mokelumne River (with delivery via WID canal facilities near Woodbridge Dam) for a period of 40 years. The City does not have water rights to any direct diversions from this river or any other sources of raw surface water. An amendment approved in January 2008 extended the agreement to 2047. The agreement also included a provision allowing the City to bank any unused water to be used later if excess supplies are available. The City was not able to use its allotted 6,000 afy until the Lodi SWTP was constructed in 2012, so its supply of banked water is currently 53,534 af. The agreement allows a total of 42,000 af of water to be banked, though an additional 12,000 af of water was added to this total during a later amendment to the agreement (Lodi 2021b). The banked water is available to the City during wet years and, by averaging the use of banked water over the term of the agreement, the average annual delivery of surface water to the City would be 7,200 afy or 2.345 billion gallons per year. The agreement also stipulates that water is released to the City between March 1st and October 15th.

Groundwater

The City overlies the Eastern San Joaquin Subbasin of the San Joaquin Valley Groundwater Basin. While the City has historically relied on groundwater supplies to meet all of its water demand, groundwater use has decreased since operation of the SWTP. An average of 26 percent of LWU's supply has come from surface water from the Mokelumne River between 2012 and 2016. As of 2020, 50 percent of the City's water supply is from surface water.

The Eastern San Joaquin Subbasin is not adjudicated and is currently managed under the ESJGSP. The Eastern San Joaquin Subbasin was identified as critically overdrafted by the DWR due to issues related to overpumping of groundwater, degradation of water quality, and seawater intrusion. The ESJGSP identified projects to help the subbasin reach sustainability, which included expansion of the Lodi SWTP to allow for an additional 10 mgd capacity of surface water treatment.

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The whole of the San Joaquin Valley Groundwater Basin frequently faces water quality issues due to the widespread occurrence of nitrate and pesticides in the water supply. Areas with high levels of nitrate in groundwater exist southeast of Lodi, south of Stockton, and east of Manteca, extending toward the San Joaquin–Stanislaus County line. Potential long-term degradation of water quality with nitrate is of concern due to continued fertilizer use, the predominantly downward movement of groundwater, and limited nitrate attenuation in the aquifer system. However, the City has not observed issues with regard to groundwater contamination in its own supply.

The 2020 UWMP assumes a safe groundwater extraction rate of 15,000 afy as the amount of groundwater available to the City during all future years. However, the 28 wells that currently provide groundwater to the City have a combined capacity of 38,355 gallons per minute or 170.4 af per day, which could pump a maximum of over 62,000 afy. In 2020, the City used 7,475 afy of this groundwater (Lodi 2021b).

Recycled Water

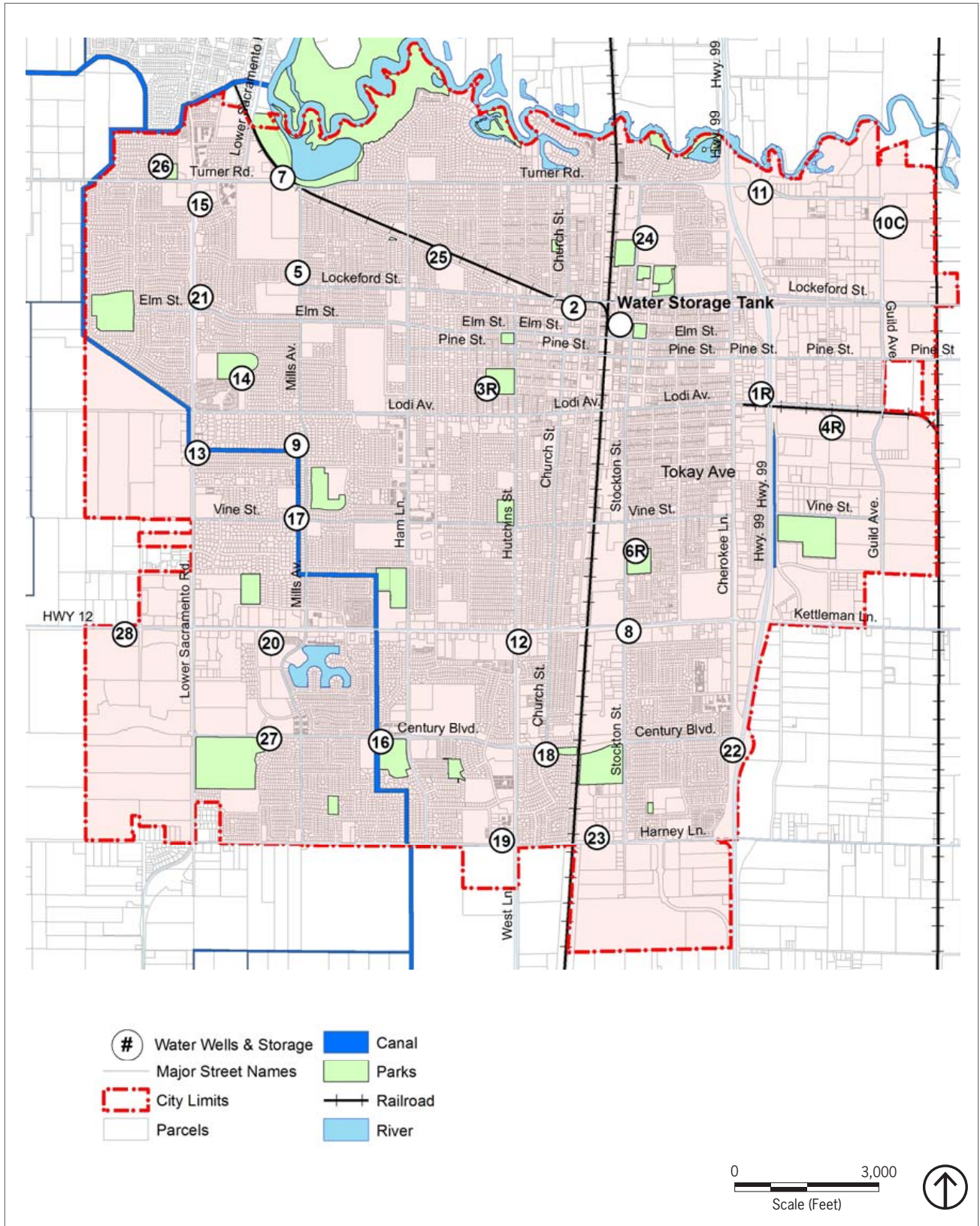
The City collects, treats, and discharges all municipal wastewater generated within the service area at its WWTP and does not coordinate with any other agencies with regard to collecting and treating Lodi wastewater. The City’s industrial wastewater, the majority of which comes from a fruit canning facility, is blended with treated flows and is stored for agricultural irrigation of neighboring City-owned land.

In 2020, the City used a total of 3,729 af of recycled water for agricultural irrigation, composed of 1,909 af of undisinfected wastewater effluent and 1,820 af of disinfected wastewater effluent. Recycled water is provided throughout the year, though the total supply was significantly reduced during winter months (November through February) to an average volume of 222 af in 2020. The average recycled water flow during the remaining months (March through October) was 509 af in 2020.

The Lodi Energy Center operated by the Northern California Power Agency (NCPA) also utilizes 1,800 afy of recycled water for its cooling towers. NCPA also uses recycled water to provide steam for the 49-megawatt natural-gas-powered generator at the plant. Additionally, the WWTP has supplied the San Joaquin County Mosquito and Vector Control District with 213 af of tertiary-treated, UV-disinfected wastewater effluent to replenish the White Slough Mosquitofish Rearing Facility’s mosquito fish rearing ponds (Lodi 2021b).

Water Supply Infrastructure

The City’s existing water distribution system is a 240-mile grid network of mains ranging from 2 inches to 36 inches in diameter, approximately 7,800 water valves and 1,800 fire hydrants, 4 water storage tanks with a capacity of 5.1 million gallons (12.6 af), and 28 groundwater wells spaced at half-mile intervals throughout the City (Lodi 2024b). The capacity of the wells ranges from 1.2 to 3.0 mgd, and the total capacity of the 28 existing wells is approximately 55.5 mgd (170.4 af per day) (Lodi 2012b). The City built a new storage tank at Well 23 (Maggio Circle) that has been in operation since 2020. In addition, a storage tank at Well 28 (Kettleman Lane and Westgate Drive) is scheduled to be completed by 2025 (Lodi 2022). The City’s existing groundwater wells are shown on Figure 4.10-2, *Existing Well Locations*.



Source: City of Lodi, 2012.

Figure 4.10-2
Existing Well Locations

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The surface water from the Mokelumne River is conveyed to the City's other distribution pipelines via a 36-inch-diameter transmission pipeline beginning at the intersection of North Mills Avenue and West Turner Road, continuing south along North Mills Avenue until its intersection with Elm Street (Lodi 2012b). This transmission line and the water infrastructure projected for the southern and western growth areas of the 2012 Water Master Plan are shown on Figure 4.10-3, *Planned Water Infrastructure*.

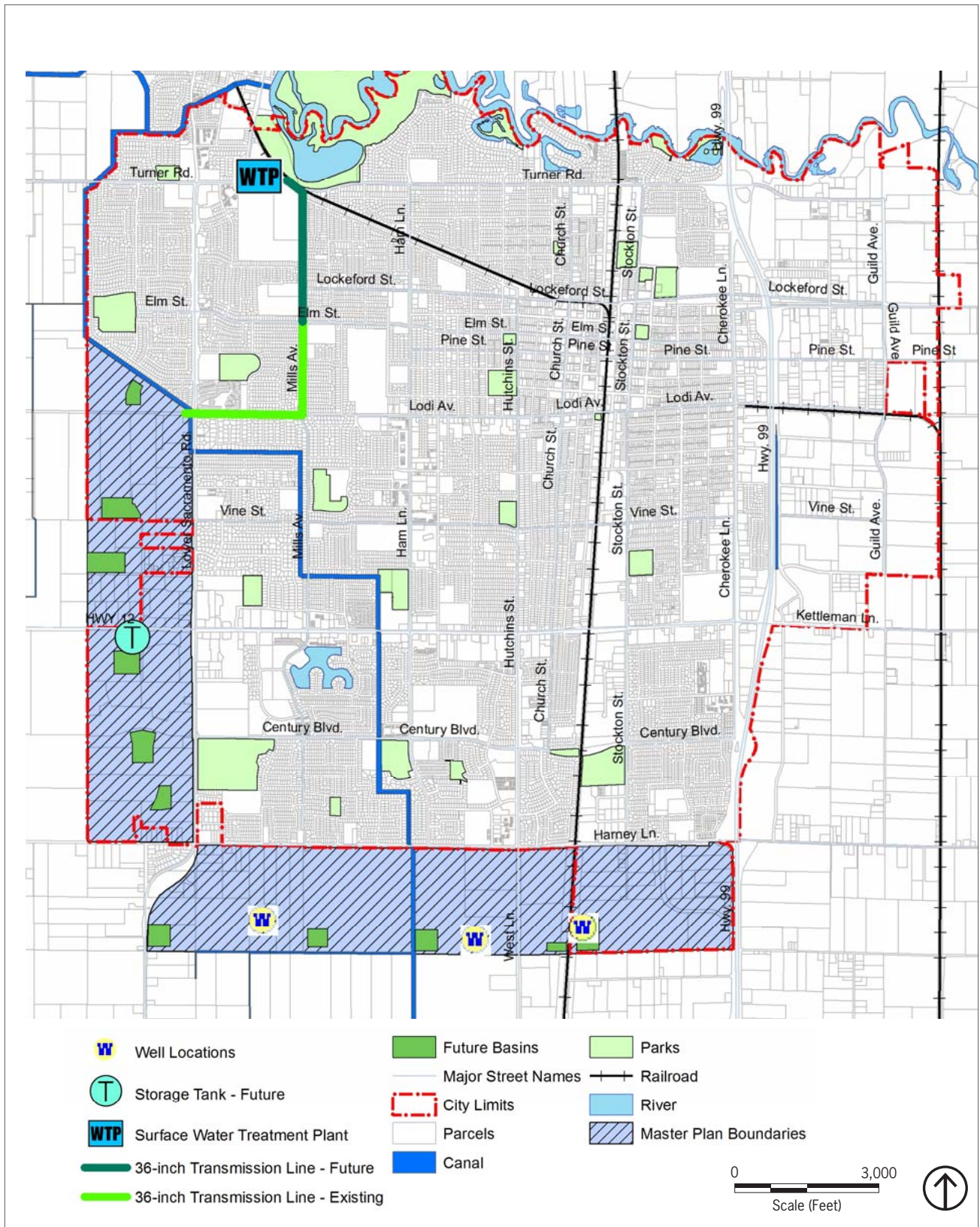
The City's SWTP began operation in 2012 and is used to treat the purchased surface water from the Mokelumne River. The SWTP has a treatment capacity of 10 mgd (11,200 afy) and has the potential to expand to 20 mgd with future improvements. The City's WWTP also provides water used for irrigating crops for cattle, power plant cooling, and pond replenishment. The WWTP has a treatment capacity of 8.5 mgd or 9,500 afy. In 2020, the WWTP collected 5,787 af of wastewater and provided 4,746 af of recycled water (Lodi 2021b).

Capital Improvement Projects

Capital Improvement Projects from the LWU are funded by the City's Water Fund. These funds are largely derived from charges of service and development impact fees from the City's IMFP (Lodi 2024b). Revenue for the Water Fund continues to increase each year due to the expanding installation of water meters that allow the City to charge usage-based water bills. The following are the major water infrastructure projects projected for 2025 to 2030.

- **SWTP Membrane Replacement Project:** This project provides funding to procure and install 420 new microfilters at the surface water treatment plant to replace the initial batch of filters installed in 2012.
- **Water Taps and Main Replacement Project:** This project involves the repair and upgrade of various components of existing water systems, including water taps (individual customer service) and water mains. These would be new improvements that would not be previously included in the City's Water Master Plan, and the locations of the improvements would need to be determined once additional analysis is performed. This project involves ongoing yearly funding.
- **Southwest Gateway Water Tank:** This project would construct a 1.5-million-gallon ground level water storage tank and pump station to serve the southwest area of the City near groundwater well 28 (Lodi 2024b). This project was funded within the 2023-2024 Annual Budget through City's IMFP funds (Lodi 2023a).

The City's Water Master Plan also outlines additional facilities that would be needed to meet the demand of development under the adopted 2010 General Plan. For example, the Plan states that three new groundwater wells south of Harney Lane would be needed to meet additional water demand from development by 2035 (Lodi 2012b). However, the 2020 UWMP states that the availability of purchased surface water and the planned construction of the Southwest Gateway Water Tank could offset the need for the new wells and additional groundwater supplies identified in the Water Master Plan.



Source: City of Lodi, 2012.

Figure 4.10-3
Planned Water Infrastructure

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The Water Master Plan has also developed preliminary plans that show the extensions to the existing water system needed to serve future development anticipated in the 2010 General Plan. This includes an extension of the 36-inch transmission line that currently extends south on North Mills Avenue from Turner Road at the SWTP to Elm Street. Under proposed conditions, the pipeline would extend south on North Mills Avenue to Lodi Avenue then extend west on Lodi Avenue toward the City Limit in order to serve future development in the western portion of the SOI. The Water Master Plan also determined the pipe sizing needed to satisfy the water demand and fire flow requirements of future development located west of Lower Sacramento Road and south of Harney Lane. This extension of service is anticipated to occur as new development is proposed for these areas (Lodi 2012b).

The 2020 UWMP also identifies the potential to expand the capacity of the SWTP from 10 mgd (36.1 af per day) to 20 mgd (61.4 af per day). This project is intended to reduce demand for groundwater from the Eastern San Joaquin Subbasin as part of the sustainability strategies under the ESJGSP. Its implementation is planned for 2030 or as needed when water demand begins to approach supply. This project would include new water supply agreements to increase the City's surface water supplies beyond 6,000 afy (Lodi 2021b).

Water Demand

The LWU provided water service 26,230 single-family, multi-family, commercial, government, and industrial customers in its service area in 2020. These consisted of 8,745 unmetered accounts and 17,845 metered accounts. According to the 2020 UWMP, the number of accounts served by the LWU has not changed between 2016 and 2020, though total potable water use has fluctuated between these years, ranging from 23,109 af in 2016 to 8,518 af in 2018, and 13,429 AF in 2020. When accounting for system losses, the total water use in 2020 was 13,979 af. The City's supply of recycled water is not accounted for within its water demand calculations since this water would not replace potable that would have otherwise been supplied by the City (Lodi 2020b).

For the purposes of calculating changes to water demand in the 2020 UWMP, the LWU projected an annual growth rate of 1.13 percent within its service area based on the historic growth rate of the City and the growth rate projected in the 2010 General Plan. According to the Department of Finance's 2020 population estimates, the City had 67,930 residents. With the 1.13 percent growth rate, the UWMP projected this would increase to 90,008 residents by 2045. The total water demand in the City is therefore projected to increase from 13,979 af in 2020 to 18,365 af by 2045 (Lodi 2021b).

Table 4.10-2, *Projected Normal, Dry, and Multiple-Dry Supply and Demand Comparisons (afy)*, shows projected normal, dry, and multiple dry year supply and demand comparisons. During single-dry water years, LWU projects that up to 50 percent of the City's purchased surface water supply from WID would be curtailed. While no reductions in groundwater are assumed for single-dry years, the City's safe yield groundwater supply is projected to decrease by 5 percent for each additional dry year after the first year. Additionally, after the dry first year, projected demand is expected to decrease as the City implements its Water Shortage Contingency Plan stages. It is assumed that the City would implement Stage I actions during the second and third year of the drought and Stage II during the fourth and fifth year. However, the City's

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demands will most likely not meet the full reduction goal of a stage within the first year that stage is implemented. Therefore, there is an expected 3 percent reduction in demand for year two, a 5 percent reduction in year three, an 8 percent reduction in year four, and a 10 percent reduction in year five.

TABLE 4.10-2 PROJECTED NORMAL, DRY, AND MULTIPLE-DRY SUPPLY AND DEMAND COMPARISONS (AFY)

	2025	2030	2035	2040	2045
Normal Year					
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
Dry Year					
Supply Totals	18,000	18,000	18,000	18,000	18,000
Demand Totals	14,663	15,512	16,410	17,360	18,365
Difference	3,337	2,488	1,590	640	-365
Multiple Dry Year					
First Year					
Supply Totals	18,000	18,000	18,000	18,000	18,000
Demand Totals	14,663	15,512	16,410	17,360	18,365
Difference	3,337	2,488	1,590	640	-365
Second 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
Third 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
Fourth 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
Fifth 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

Source: Lodi 2021b.

As shown in Table 4.10-2, an additional source of supply will be needed to supplement existing groundwater and surface water supplies to ensure the City can deliver all water demands to its customers. Based on the single and multiple year drought projections, the City will not have enough supply to meet demand for prolonged dry conditions in the future. To ensure that the City can meet its anticipated future demand, the City plans to expand the SWTP by 2030 and enter new supply agreements to increase its purchased supply

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beyond 6,000 afy. In addition, the City anticipates that water saving actions through the Water Shortage Contingency Plan and Demand Management Measures will help reduce demand especially during dry periods (Lodi 2021b).

4.10.2.2 THRESHOLDS OF SIGNIFICANCE

As lead agency, the City has determined that a project would normally have a significant effect on the environment if it would:

1. U-3 Require or result in the relocation or construction of new or expanded water, wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
2. U-4 There are not sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

4.10.2.3 PROPOSED GENERAL PLAN POLICIES

The following goals, policies, and actions from the proposed General Plan are applicable to water services. These policies have not been modified as part of the 2024 General Plan Update. .

- **Policy GM-G2:** Provide infrastructure—including water, sewer, stormwater, and solid waste/recycling systems—that is designed and timed to be consistent with projected capacity requirements and development phasing.
- **Policy GM-P5:** Update impact fee system to balance the need to sufficiently fund needed facilities and services without penalizing multifamily housing or infill development.
- **Policy GM-P8:** Ensure that public facilities and infrastructure—including water supply, sewer, and stormwater facilities—are designed to meet projected capacity requirements to avoid the need for future replacement and upsizing, pursuant to the General Plan and relevant master planning.
- **Policy GM-P9:** Coordinate extension of sewer service, water service, and stormwater facilities into new growth areas concurrent with development phasing. Decline requests for extension of water and sewer lines beyond the city limit prior to the relevant development phase and approve development plans and water system extension only when a dependable and adequate water supply for the development is assured.
- **Policy GM-P10:** Develop new facilities and rehabilitate existing facilities as needed to serve existing development and expected development, in accordance with the General Plan and relevant infrastructure master plans.

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- **Policy GM-P11:** Prepare master plan documents as necessary during the planning period to address the infrastructure needs of existing and projected growth, and to determine appropriate infrastructure provision for each phase. Existing master plan documents should be used until new master plans are developed, and updates should occur as follows:
 - A sanitary sewer system master plan should be undertaken soon after General Plan adoption. In particular, this master plan should address how to best provide sewer service for the growth on the east side of the city and for infill development, and to determine if additional wastewater flows will need to be diverted into the proposed South Wastewater Trunk Line.
 - A citywide stormwater master plan should be prepared soon after General Plan adoption to confirm or revise existing planning studies.
 - A White Slough Water Pollution Control Facility master plan should be completed during the early stages of Phase 1, most likely in 2013 or 2014.
 - A recycled water master plan was prepared in May 2008 and is current as of 2009. It may be appropriate to update this document when the next WSWPCF master plan is prepared, in 2013 or 2014, to evaluate the feasibility of constructing a scalping plant to provide recycled water for use within the city.
 - A potable water supply and distribution master plan is not urgently needed, as of 2009. Future planning should be completed as necessary.
 - The Urban Water Management Plan should be updated on a five year basis in compliance with State of California mandated requirements. Future plans should be developed in 2010, 2015, 2020, 2025, and 2030.
- **Policy GM-P12:** Require water conservation in both City operations and private development to minimize the need for the development of new water sources and facilities. To the extent practicable, promote water conservation and reduced water demand by:
 - Requiring the installation of non-potable water (recycled or gray water) infrastructure for irrigation of landscaped areas over one acre of new landscape acreage, where feasible. Conditions of approval shall require connection and use of nonpotable water supplies when available at the site.
 - Encouraging water-conserving landscaping, including the use of drought-tolerant and native plants, xeriscaping, use of evapotranspiration water systems, and other conservation measures.
 - Encouraging retrofitting of existing development with water-efficient plumbing fixtures, such as ultra-low-flow toilets, waterless urinals, low-flow sinks and showerheads, and water-efficient dishwashers and washing machines.
- **Policy GM-P13:** Support on-site gray water and rainwater harvesting systems for households and businesses. The City should develop a strategy for the legal, effective, and safe implementation of gray water and rainwater harvesting systems, including amendment of the Building Code as appropriate to

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permit gray water and provision of technical assistance and educational programming to help residents implement gray water and rainwater harvesting strategies.

- **Policy GM-P14:** Continue to implement the Water Meter Retrofit Program (consistent with State requirements as indicated in AB 2572), whereby all existing non-metered connections would be retrofitted with a water meter. This program is expected to be completed in 2015.
- **Policy GM-P15:** Require water meters in all new and rehabilitated development.
- **Policy GM-P16:** Monitor water usage and conservation rates resulting from the meter progress to verify if water demand assumptions are correct. If actual usage and conservation rates vary from planning assumptions, reassess requirements for future water resources.

4.10.2.4 ENVIRONMENTAL IMPACTS

UTIL-4	As with the 2010 General Plan, the proposed project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects (Threshold U-3).
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The 2009 Certified EIR determined that new water distribution infrastructure would be needed to meet the anticipated demand under the 2010 General Plan. This included an extension of the 36-inch transmission line that currently conveys flow from the SWTP south along Mills Avenue in addition to three new groundwater wells and a new storage tank, the locations of which would be determined as development is proposed. This impact was therefore considered less than significant since the environmental impacts of the identified infrastructure needed to meet the future demand under the approved project were analyzed and mitigated to the extent possible in the 2009 Certified EIR.

Since publication of the 2009 Certified EIR, the infrastructure improvements identified in the 2009 Certified EIR have not yet been constructed. The City's 2020 UWMP has also identified plans to expand the capacity of the SWTP from 10 mgd to 20 mgd by 2030 or when demand starts to approach supply. This improvement is associated with the shortfall of available supplies the City is projected to experience during dry years. The Southwest Water Tank project has also been fully funded by the City's budget and is anticipated for construction between 2024 and 2025 (Lodi 2023c). Other future water distribution and supply projects needed to expand and upgrade the City's water system would be addressed in later updates to the City's Capital Improvement Program and in future revisions to the Water Master Plan, as required under Policy GM-P11.

As discussed in Chapter 3, the proposed project is expected to result in a net increase of 6,099 new dwelling units and 2.6 million square feet of non-residential space in the City and its SOI when compared to existing conditions in 2020. However, when compared to the 2010 General Plan buildout projection, the proposed project would result in 367 fewer dwelling units and a decrease of 316,000 square feet of non-residential space in the City and SOI. While demand for new water conveyance infrastructure is expected to increase

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as the City expands into undeveloped areas of the City and its SOI, the infrastructure needed to meet this demand was identified and analyzed in the 2009 Certified EIR. As a result of the proposed project, the demand for this infrastructure is expected to decrease when compared to the approved project.

New development under the proposed project would continue to conform with the City's existing procedures for the approval and expansion of water conveyance facilities. This includes compliance with Chapter 13.08 of the Lodi Municipal with respect to extension and construction of new water service. Applicants seeking the extension of water service are required to submit an application to the director of Public Works and prepare engineering plans in accordance with the City's Public Improvement Design Standards if the application is approved. New development would also be subject to water supply impact mitigation fees including the SWTP fee and Southwest Water Tank fee, if applicable. These fees would help to ensure that wastewater conveyance and treatment infrastructure is funded and available for new development. New development would also comply with Growth Management Element policies that require the provision of water distribution infrastructure to serve new development including Policies GM-G2, GM-P8, GM-P9, and GM-P10.

The impacts associated with the construction and operation of new water infrastructure under the proposed project would not exceed the impacts identified in the 2009 Certified EIR. Therefore, as with the approved project, impacts of the proposed project would be less than significant.

Significance Without Mitigation: Less than significant.

UTIL-5	As with the 2010 General Plan, the proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple-dry years (Threshold U-4).
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The 2009 Certified EIR identified that the City would not have the water supplies needed to serve the demand under the 2010 General Plan during a dry year. The 2009 Certified EIR concluded, however, that impacts would be less than significant due to several General Plan policies that would help to increase the City's water supply sources and ensure adequate water supply for new development. The primary policy used for this determination was Policy GM-P10, which requires that the City only approve development plans and water system extensions when a dependable and adequate water supply for the development is ensured. This policy would remain as part of the proposed project and would continue to ensure that new development is guaranteed water supply before approval.

The projected water demand of the 2010 General Plan and the 2024 General Plan Update at 2045 is shown in Table 4.10-3, *Comparison of Water Demand Between Approved Project and Proposed Project (gallons/day)*. The commercial and industrial water demands are based on the water use factors in the City's 2012 Water Master Plan while the residential water use is based on the average residential water use in Lodi from April 2022 through March 2023 as reported by the SWRCB's Water Conservation and Production

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Reports. As shown in the table, the proposed project would result in less water demand when compared to the approved project due to the reduction in buildout under the proposed project and application of water conservation measures in the California Building Code.

**TABLE 4.10-3 COMPARISON OF WATER DEMAND BETWEEN APPROVED PROJECT AND PROPOSED PROJECT
(GALLONS/DAY)**

	City	SOI	City + SOI
Existing 2010 General Plan (Approved Project)			
Residential	7,731,344	1,441,792	9,173,135
Commercial	474,937	33,965	508,902
Industrial	527,071	35,404	562,475
Total Water Generation	8,733,351	1,511,161	10,244,512
Proposed 2024 General Plan (Proposed Project)			
Residential	7,731,344	1,336,512	9,067,855
Commercial	474,684	29,987	504,672
Industrial	515,051	34,848	549,899
Total Water Generation	8,721,078	1,401,348	10,122,426
Net Change (Proposed – Approved)			
Residential	0	-105,280	-105,280
Commercial	-253	-3,977	-4,230
Industrial	-12,020	-556	-12,576
Total Water Generation	-12,273	-109,813	-122,086

Sources: SWRCB 2024; Lodi 2012b.

Notes: Residential water use is based on a use factor of 110 gallons/capita/day from the Water Resources Control Board's Water Conservation and Production Reports for water use in Lodi averaged over 12 months (April 2022 - March 2023). Population projections are based on a persons per housing unit ratio of 2.60 (see Chapter 3, Table 3-2 of the Draft EIR).

Commercial water use is based on a factor of 2,750 gallons/acre/day and industrial water use is based on a factor of 2,200 gallons/acre/day.

As shown in Table 4.10-2, the 2020 UWMP projects water demand in the LWU service area to increase to 18,365 afy by 2045. This projection is based on the assumption that the City's population will grow to 90,008 residents by 2045. Under the conservative assumption that all land in the SOI is annexed into the service area of the LWU by 2045, the total water demand under buildout of the 2024 General Plan would be 11,339 afy (10.12 mgd), which is approximately 38 percent less than the water demand projected in 2020 UWMP by 2045. Buildout under the 2024 General Plan would therefore not exceed the City's available water supplies under the most restrictive water use scenario shown in Table 4.10-2, 15,000 afy of groundwater at the fifth dry year (PlaceWorks 2024).

Additionally, the demands projected in the UWMP and for the 2024 General Plan do not consider per capita water use reductions in future years that would occur due to the water efficiency requirements of CALGreen, California Plumbing Code, and the City's water conservation measures in the municipal code. New construction for both residential and commercial land uses typically achieve a reduction in water usage rates of 20 percent through compliance with these regulations. Laws SB 606, AB 1668, and SB 1157 also

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amended the California Water Code to establish indoor water use standards of 55 gallons per person per day until 2025, at which time it decreases to 47 gallons, and further decreases to 42 gallons by 2030. Therefore, the overall water demand under the proposed project is expected to be lower than projected in these calculations. Projects that meet the SB 610 criteria, such as residential projects with more than 500 dwelling units, would also be required to prepare WSAs to confirm adequate water supply. Furthermore, per Policy GM-P9, new development would not be approved until adequate water supplies are ensured.

Should demand increase as projected within the 2020 UWMP, therefore outpacing the City's water supply for most dry years, the LWU plans to expand the SWTP to accommodate 20 mgd of water treatment capacity. This would also accompany new water supply agreements to increase the City's purchased surface water supply. This project would occur regardless of whether the 2024 General Plan is adopted. Furthermore, as noted above, the water demand under the approved project is greater than the proposed project due to the larger buildout that was projected under the 2010 General Plan. Therefore, the proposed project would not result in an increase in water demand that would exceed available water supplies during normal, dry, and multiple-dry years when compared to the approved project. The proposed project would not result in any new or increased impacts with respect to water supply, and impacts would remain less than significant.

Significance Without Mitigation: Less than significant.

4.10.2.5 CUMULATIVE IMPACTS

UTIL-6	As with the 2010 General Plan, the proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to water distribution or supply.
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The area considered for cumulative impacts to water supply services is the service area of the LWU which is contiguous with the boundaries of the City. The LWU also sells water to the Sunnyside Estates Maintenance District at the southern boundary of the City. Impacts UTIL-4 and UTIL-5 above consider the scope of all development to occur within the City by 2045 and conservatively assume that the City will annex all land in its SOI by this horizon year. Therefore, as determined above, the proposed project would not result in any new or increased impacts to water distribution or supply infrastructure when compared those of the approved project. Because the development capacity under the proposed project is less than that of the approved project, all future development under the proposed project by 2045 has been assumed within the existing planning documents that guide the City's development and maintenance of water infrastructure and provision of water supply, which include the UWMP and Water Master Plan.

Cumulative water demands are addressed through the City's UWMP, which is required to be updated every five years to ensure that there are adequate water supplies and contingency plans for future residents and customers. The changes proposed under the 2024 General Plan would therefore be incorporated into the

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2025 update of the UWMP. Expansion and upgrades to water infrastructure are addressed through the City's Capital Improvement Program and Water Master Plan, which are periodically updated to ensure that the City is adequately served by water infrastructure. All future development under the 2024 General Plan would require the implementation of water efficiency and water conservation measures, as per the CALGreen Code and the MWELO irrigation requirements.

All cumulative projects would require compliance with the City municipal code, as well as other local, State, and federal regulatory requirements. New construction projects and continuing conservation efforts would result in a reduction in per capita water use over time, which would ensure that cumulative impacts with respect to water supply would be less than significant. The proposed project would also result in similar or decreased impacts with respect to water supply and distribution when compared to the approved project.

Significance Without Mitigation: Less than significant.

4.10.3 STORM DRAINAGE SYSTEMS

4.10.3.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal Regulation

Federal Clean Water Act

Under Section 401 of the Clean Water Act, every applicant for a Section 404 permit that may result in a discharge to a water body must first obtain a state water quality certification indicating the proposed activity will comply with State water quality standards. Certifications are issued in conjunction with US Army Corps of Engineers Section 404 permits for dredge and fill discharges. In addition, a water quality certification must be sought for any activity that would result in the placement of structures in waters of the United States that are not jurisdictional to the US Army Corps of Engineers, such as isolated wetlands, to ensure that the proposed activity complies with State water quality standards. In California, the authority to grant water quality certification or waive the requirement is delegated by the SWRCB to its nine RWQCBs.

National Pollutant Discharge Elimination System

The NPDES permit program was established by the Clean Water Act to regulate municipal and industrial discharges to surface waters of the United States from their municipal separate storm water systems (MS4). Under the NPDES program, all facilities that discharge pollutants into waters of the United States are required to obtain an NPDES permit. Requirements for stormwater discharges are also regulated under this program.

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State Regulation

SWRCB General Construction Permit

Construction activities that disturb one or more acres of land that could impact hydrologic resources must comply with the requirements of the SWRCB Construction General Permit (Order WQ 2022-0057-DWQ; NPDES No. CAS000002), which was adopted on September 8, 2022, and became effective on September 1, 2023. Under the terms of the permit, applicants must file Permit Registration Documents (PRD) with the SWRCB prior to the start of construction. The PRDs include a Notice of Intent, risk assessment, site map, SWPPP, annual fee, and a signed certification statement. The PRDs are submitted electronically to the SWRCB via the Stormwater Multiple Application and Report Tracking System (SMARTS) website.

Applicants must also demonstrate conformance with applicable best management practices (BMP) and prepare a SWPPP containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project site. The SWPPP must list BMPs that would be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Additionally, the SWPPP must contain a weekly visual monitoring program and BMP inspections prior to, during, and after qualifying precipitation events. Water quality monitoring is also required with a schedule based on the risk level of the site.

SWRCB Industrial General Permit

The Statewide General Permit for Stormwater Discharges Associated with Industrial Activities, Order No. 2014-0057-DWQ and amended by 2015-0122-DWQ (2018), implements the federally required stormwater regulations in California for stormwater associated with industrial activities that discharge to waters of the United States. This regulation covers facilities that are required by federal regulations or by the RWQCBs to obtain an NPDES permit. Dischargers are required to eliminate non-stormwater discharges, develop SWPPPs that include BMPs, conduct monitoring of stormwater runoff, and submit all compliance documents via the SWRCB's SMARTS program.

SWRCB Trash Amendment

On April 7, 2015, the SWRCB adopted an amendment to the Water Quality Control Plan for Ocean Waters of California to control trash. In addition, the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California added the section, Part 1 Trash Provisions. Together, they are collectively referred to as "the Trash Amendments." The purpose of the Trash Amendments is to provide statewide consistency for the RWQCBs in their regulatory approach to protect aquatic life, public health beneficial uses, and reduce environmental issues associated with trash in State waters, while focusing limited resources on high trash generating areas.

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The Trash Amendments apply to all Phase I and II permittees under the NPDES MS4 permits. Compliance with the Trash Amendment requires municipalities to install certified full trash capture systems in all City applicable storm drain infrastructure no later than December 2, 2030 (SWRCB 2023b).

Regional Regulation

State General Permit for Small Municipal Separate Storm Sewer Systems

In 1987, amendments to the CWA established a two-phase program to regulate 13 classes of stormwater discharges. Under Phase I, which began in 1990, the RWQCBs adopted NPDES stormwater permits for medium (serving between 100,000 and 250,000 people) and large (serving 250,000 people) municipalities or metropolitan areas. As part of Phase II, the SWRCB adopted a General Permit for the Discharge of Stormwater for Small Municipal Separate Storm Sewer Systems (MS4s) (Order No. 2013-00015-DWQ or General Permit) to provide permit coverage for smaller municipalities, including non-traditional small MS4s (e.g., public campuses). The MS4 permit requires a discharger (e.g., City) to develop and implement a Stormwater Management Plan/Program with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). SWRCB is in the process of updating the permit and released an informal draft for public review in 2024.

Multi-agency Low Impact Design Standards

The Cities of Lathrop, Lodi, Manteca, Patterson, and Tracy and San Joaquin County developed a Multi-Agency Post-Construction Standards Manual (also referred to as Low Impact Design Standards) in compliance with Provision E.12 of the MS4 permit. This multi-agency manual provides consistent guidance for developers and builders working in the region as well as agency staff. These standards replaced the City's 2008 Storm Water Development Standards Plan. The Manual provides tools to address the following objectives:

- Establish the methodology to consider the effects of stormwater runoff from a new development or redevelopment project during the project planning phase.
- Minimize contiguously-connected impervious surfaces in areas of new development and redevelopment, and where feasible, to maximize on-site infiltration of stormwater runoff.
- Implement site design measures to preserve, create, or restore areas that provide important water quality benefits such as riparian corridors, wetlands, stream and buffers, and maintain, protect, and improve underlying soil quality.
- Provide source control measures to minimize the transport of and/or eliminate potential sources of pollution to stormwater runoff or run-on into the MS4 and receiving waters.
- Implement Low Impact Development (LID) control measures to reduce and/or eliminate the volume of stormwater runoff and pollutants leaving the project site.
- Control post-construction peak stormwater runoff discharge volumes and velocities (hydromodification) to mitigate impacts from downstream erosion and to protect downstream habitat.

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- Develop tools for effectively operating, managing, and maintaining stormwater control measures (San Joaquin Valley Stormwater Quality Partnership 2015).

The Post-Construction Standards Manual requires the preparation of a Project Stormwater Plan to be submitted with project applications. For small projects (those that create at least 2,500 but less than 5,000 square feet of impervious surface), the Project Stormwater Plan must include basic project information, proposed site design measures, and results from the Post-Construction Stormwater Runoff Calculator showing the change in pre-project and post-project stormwater runoff. Proposed site design measures may include stream setbacks and buffers, soil quality improvement and maintenance, tree planting and preservation, rooftop and impervious area disconnection, porous pavement, vegetated swales, and rain barrels and cisterns.

For larger projects that are designated Regulated Projects (projects that create and/or replace greater than or equal to 5,000 square feet of impervious surfaces), the Project Stormwater Plan must include additional information, such as a site assessment, proposed source control measures to be implemented, proposed stormwater treatment control measures, and a proposed Operations and Maintenance Plan. For projects designated Hydromodification Management Projects (projects that create and/or replace one acre or more of impervious surface), the Project Stormwater Plan must include, in addition to the information required for Regulated Projects, proposed hydromodification control measures and modeling results.

Local Regulation

City of Lodi Storm Water Management Program

The City first adopted its Storm Water Management Program (SWMP) in 2003 and last updated it in 2012. This document fulfills the City's requirement to develop and implement a SWMP that describes BMPs, measurable goals, and timetables for implementation in six program areas: public education and outreach, illicit discharge detection and elimination, public participation/involvement, construction site runoff control, post-construction runoff control, and pollution prevention/good housekeeping, per the MS4 permit. Table 6-1 of the SWMP documents shows the suite of BMPs which collectively enable the City to meet the SWB's MEP standard (Lodi 2012c).

City of Lodi Storm Drainage Master Plan

The City first adopted a Master Plan for the Development of Storm Water Collection and Disposal Facilities for eight drainage areas within the City. The 2012 Storm Drainage Master Plan updated this analysis to include three additional drainage areas that encompass western and southern portions of the City's SOI outside the City limits. The 2012 Master Plan presents design criteria, defines level of service standards, analyzes service demands, considers alternative facilities plans for storm drainage facilities in the City (Lodi 2012d).

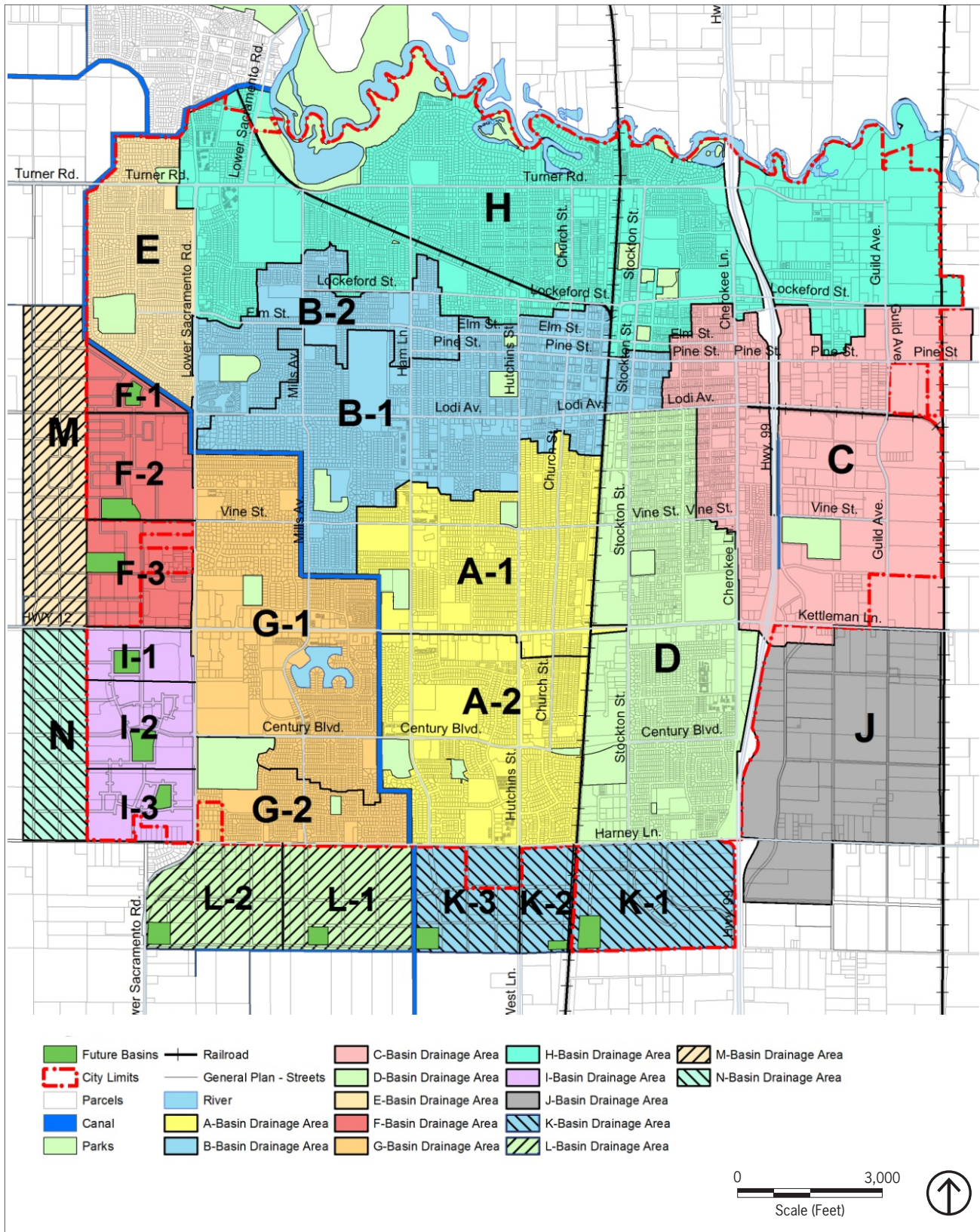
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City of Lodi Municipal Code

The City implements the provisions of its NPDES MS4 permit through Title 13, Public Services, Chapter 13.14, Stormwater Management and Discharge Control, of the municipal code. This chapter prohibits any non-stormwater discharges into the City's storm water system and requires conformance to the City's public improvement design standards for any stormwater system improvements. Property owners must submit an application to public works in order to construct a stormwater conveyance extension. Additionally, per Title 17, Development Code, Chapter 17.50, Subdivision Design and Improvement Requirements, a subdivider must submit a master storm drainage plan for the entire area covered by the proposed tentative map. The drainage system must be designed in compliance with city design standards and the city master storm drainage plan.

City of Lodi Impact Mitigation Fee Program

The City's IMFP includes a Storm Drainage IMF that ensures new development pays a proportionate share of the cost of constructing facilities to accommodate drainage demands of new construction within the City. As of 2021, the Storm Drainage IMF funds the construction of a new pump station and detention basin in Storm Drainage Area C and new detention basins in Storm Drainage Basins F and I (see Figure 4.10-4, *Storm Drain Planning Areas*). Per the 2023 IMFP report, these facilities have been constructed (Lodi 2023b). The fees are levied based on a property's location within one of three zones within the City, as shown in Figure 7-1 of the 2021 IMFP Update Report (Lodi 2021a).



Source: City of Lodi, 2012.

Figure 4.10-4
Storm Drain Planning Areas

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City of Lodi 2010 General Plan

The existing City of Lodi General Plan includes the following policies related to stormwater collection and drainage:

Growth Management Element

- **Policy GM-G2:** Provide infrastructure—including water, sewer, stormwater, and solid waste/recycling systems—that is designed and timed to be consistent with projected capacity requirements and development phasing.
- **Policy GM-P5:** Update impact fee system to balance the need to sufficiently fund needed facilities and services without penalizing multifamily housing or infill development.
- **Policy GM-P8:** Ensure that public facilities and infrastructure—including water supply, sewer, and stormwater facilities—are designed to meet projected capacity requirements to avoid the need for future replacement and upsizing, pursuant to the General Plan and relevant master planning.
- **Policy GM-P9:** Coordinate extension of sewer service, water service, and stormwater facilities into new growth areas concurrent with development phasing. Decline requests for extension of water and sewer lines beyond the city limit prior to the relevant development phase and approve development plans and water system extension only when a dependable and adequate water supply for the development is assured.
- **Policy GM-P10:** Develop new facilities and rehabilitate existing facilities as needed to serve existing development and expected development, in accordance with the General Plan and relevant infrastructure master plans.

Conservation Element

- **Policy C-P29:** Minimize storm sewer pollution of the Mokelumne River and other waterways by maintaining an effective street sweeping and cleaning program.
- **Policy C-P30:** Require, as part of watershed drainage plans, Best Management Practices, to reduce pollutants to the maximum extent practicable.
- **Policy C-P31:** Require all new development and redevelopment projects to comply with the post-construction Best Management Practices (BMPs) called for in the Stormwater Quality Control Criteria Plan, as outlined in the City's Phase 1 Stormwater NPDES permit issued by the California Water Quality Control Board, Central Valley Region. Require that owners, developers, and/or successors-in-interest to establish a maintenance entity acceptable to the City to provide funding for the operation, maintenance, and replacement costs of all post-construction BMPs.
- **Policy C-P32:** Require, as part of the City's Storm Water NPDES Permit and ordinances, the implementation of a Grading Plan, Erosion Control Plan, and Pollution Prevention Plan during the construction of any new development and redevelopment projects, to the maximum extent feasible.

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- **Policy C-P33:** Require use of stormwater management techniques to improve water quality and reduce impact on municipal water treatment facilities.

Safety Element

- **Policy S-P5:** Continue to ensure, through the development review process, that future developments do not increase peak storm flows and do not cause flooding of downstream facilities and properties. Additionally, the City shall ensure that storm drainage facilities are constructed to serve new development adequate to storm runoff generated by a 100-year storm.
- **Policy S-P10:** Update Zoning Ordinance and development review process as needed to reduce peak-hour stormwater flow and increase groundwater recharge. These may include provisions for:
 - Constructing parking areas and parking islands without curbs and gutters, to allow stormwater sheet flow into vegetated areas.
 - Grading that lengthens flow paths and increases runoff travel time to reduce the peak flow rate.
 - Installing cisterns or sub-surface retention facilities to capture rainwater for use in irrigation and non-potable uses.
- **Policy S-P11:** Update City Street design standards to allow for expanded stormwater management techniques. These may include:
 - Canopy trees to absorb rainwater and slow water flow.
 - Directing runoff into or across vegetated areas to help filter runoff and encourage groundwater recharge.
 - Disconnecting impervious areas from the storm drain network and maintain natural drainage divides to keep flow paths dispersed.
 - Providing naturally vegetated areas in close proximity to parking areas, buildings, and other impervious expanses to slow runoff, filter out pollutants, and facilitate infiltration.
 - Directing stormwater into vegetated areas or into water collection devices.
 - Using devices such as bioretention cells, vegetated swales, infiltration trenches and dry wells to increase storage volume and facilitate infiltration.
 - Diverting water away from storm drains using correctional drainage techniques.

UTILITIES & SERVICE SYSTEMS**Existing Conditions**

The City's Wastewater Utility is a part of the Public Works department which plans, maintains, and implements improvements to the City's stormwater drainage system. The storm drainage service area is largely contiguous with the boundaries of the City. Stormwater drainage in the City's SOI is facilitated by Maintenance Districts (Mokelumne Acres and Sunnyside Estates). Areas not within the service areas of Maintenance Districts do not have stormwater drainage infrastructure and rely on surface drainage to convey stormwater (San Joaquin 2014).

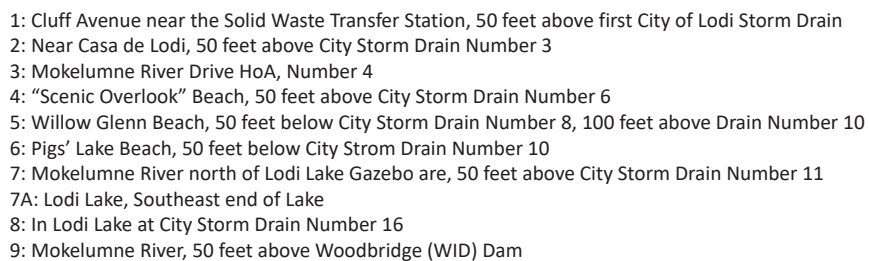
Storm Drain System

The City maintains a gravity-based storm water system built around a number of storm water detention basins and disposal of runoff by pumping to the Woodbridge Irrigation District (WID) Canal, Lodi Lake, or the Mokelumne River. The detention basins are scattered throughout the City many of which are maintained as parks and recreational facilities during non-runoff periods. The City's storm drain infrastructure includes 3,400 catch basins, 18 storm outlets, 227.9 acres of detention basins, 15 pumping stations, and 165 miles of stormwater collection and conveyance piping ranging in diameter from 4 to 72 inches (Lodi 2024b). The City adds approximately 33 catch basins and 28 manholes each year (Lodi 2022). The City's storm drainage outfall locations are shown on Figure 4.10-5, *Storm System Outfall Locations*.

Woodbridge Irrigation District Discharges

The City's stormwater discharges to the WID canal are governed by the Storm Drainage Discharge Agreement between the City and WID (Lodi 2010). In accordance with this agreement, the City can discharge a maximum of 160 cubic feet per second (cfs) in the winter and 40 cfs in the summer into the WID canal. Maximum discharge rate per site is 60 cfs in the winter and 20 cfs in the summer. However, maximum discharge rates can be increased with 12-hour notice if approved by WID. The City's most recent agreement was approved by City Council on Oct 20, 1993, and extends for 40 years (Lodi 2022).

The Agreement allows three points of discharge into the WID canal. The first is an existing connection on Shady Acres Drive. The Shady Acres Pump Station is in a residential neighborhood. The second is an existing discharge adjacent to Kofu Park on Century Boulevard. The third connection has not been installed. The third connection will be in Drainage Area K (see Figure 4.10-4) one-half mile south of Harney Lane. This agreement also includes the City's right to modify existing Beckman and Shady Acres pump stations and to construct additional discharge points (Lodi 2012d).



0 1
Scale (Miles)

⬆

Figure 4.10-5
Storm System Outfall Locations

UTILITIES & SERVICE SYSTEMS

Capital Improvement Projects

The City's 2024-2025 Annual Budget identifies several ongoing wastewater-related capital improvement projects (CIP) that aim to repair and upgrade the City's existing stormwater conveyance infrastructure. The following are the major ongoing wastewater utility projects related to stormwater facilities that have been funded under previous budget cycles but are not yet constructed:

- **Century/DeBenedetti Storm Drain Outfall:** This project would construct additional storm drain outfall line into DeBenedetti Park from Century Boulevard at the northeast corner of the existing basing in order to reduce pressure on the main lines coming from DeBenedetti.
- **Henri and Lower Sacramento Storm Drain Connection.** This project would construct a storm drain relief line between Vineyard Terrace subdivision's on-site system and separate drainage system. The connection will reduce the likelihood of street flooding within the subdivision.
- **Stormwater Pump Rehabilitation for Kofu and Lincoln Stations.** These projects provide funding to rehabilitate the City's storm pump stations located at Kofu Park and 1051 Lincoln Avenue. The rehabilitation at Kofu would include two new pumps and motors along with updating electrical components. The rehabilitation at Lincoln would include a new pump and motor along with structural reinforcement of the pump facility.

The following major stormwater drainage projects are seeking funding under the City's 2024-2025 Budget Cycle and in future budget cycles:

- **Storm Drain Trash Handling.** This project provides funding for design and installation of a trash capture device at multiple locations identified in the City's trash policy implementation plan (see *SWRCB Trash Amendment* above).
- **Lodi Lake Storm Pump Station & Trash Handling.** This project would repair two vertical turbine storm pumps and motors at the Lodi Lake storm pumping facility. These pumps suffered a catastrophic failure and are currently non-operational.
- **Storm Drain System Improvements.** This project refers to a variety of potential projects that could reduce the impacts of major storms. This CIP allows for those projects to be completed over the next few years.

The 2012 Stormwater Master Plan also outlined the storm drainage improvements needed to serve 11 subarea drainage watersheds in the City, as summarized in Table 4.10-4, *Storm Drainage Area Improvements*. As development is proposed in these subareas, the identified facilities and their sizing would be refined and verified through preparation of a detailed stormwater master plan.

UTILITIES & SERVICE SYSTEMS

TABLE 4.10-4 STORM DRAINAGE AREA IMPROVEMENTS

Subarea	Subarea Size	Detention Basin Storage (AF)	Pipe Size Range (inches)
F-1	50.3	8.5	18-30
F-2	160	33.4	15-54
F-3	130	27.4	15-54
I-1	76.9	18.7	15-48
I-2	138	24.4	15-48
I-3	108	18.3	15-54
K-1	234.7	61.4	24-66
K-2	74.6	14.2	18-42
K-3	153.8	33.1	18-54
L-1	175.5	31.8	12-48
L-2	276.4	45.0	15-54

Source: Lodi 2012d

Note: Some or most of the storm drainage improvements identified for subareas F-1, F-2, F-3, I-1, I-2, I-3, and K-1 have been constructed as of 2024.

4.10.3.2 THRESHOLDS OF SIGNIFICANCE

As lead agency, the City has determined that a project would normally have a significant effect on the environment if it would:

- U-5 Would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

4.10.3.3 PROPOSED GENERAL PLAN POLICIES

The following goals, policies, and actions from the proposed General Plan are applicable to stormwater conveyance services. These policies have not been modified as part of the 2024 General Plan Update.

Growth Management Element

- **Policy GM-G2:** Provide infrastructure—including water, sewer, stormwater, and solid waste/recycling systems—that is designed and timed to be consistent with projected capacity requirements and development phasing.
- **Policy GM-P5:** Update impact fee system to balance the need to sufficiently fund needed facilities and services without penalizing multifamily housing or infill development.
- **Policy GM-P8:** Ensure that public facilities and infrastructure—including water supply, sewer, and stormwater facilities—are designed to meet projected capacity requirements to avoid the need for future replacement and upsizing, pursuant to the General Plan and relevant master planning.

UTILITIES & SERVICE SYSTEMS

- **Policy GM-P9:** Coordinate extension of sewer service, water service, and stormwater facilities into new growth areas concurrent with development phasing. Decline requests for extension of water and sewer lines beyond the city limit prior to the relevant development phase and approve development plans and water system extension only when a dependable and adequate water supply for the development is assured.
- **Policy GM-P10:** Develop new facilities and rehabilitate existing facilities as needed to serve existing development and expected development, in accordance with the General Plan and relevant infrastructure master plans.

Conservation Element

- **Policy C-P29:** Minimize storm sewer pollution of the Mokelumne River and other waterways by maintaining an effective street sweeping and cleaning program.
- **Policy C-P30:** Require, as part of watershed drainage plans, Best Management Practices, to reduce pollutants to the maximum extent practicable.
- **Policy C-P43:** Require all new development and redevelopment projects comply with the post-construction Best Management Practices (BMPs) called for in the Stormwater Quality Control Criteria Plan, as outlined in the City's Phase 1 Stormwater NPDES permit issued by the California Water Quality Control Board, Central Valley Region. Require that owners, developers, and/or successors-in-interest to establish a maintenance entity acceptable to the City to provide funding for the operation, maintenance, and replacement costs of all post-construction BMPs.
- **Policy C-P44:** Require, as part of the City's Storm Water NPDES Permit and ordinances, the implementation of a Grading Plan, Erosion Control Plan, and Pollution Prevention Plan during the construction of any new development and redevelopment projects, to the maximum extent feasible.
- **Policy C-P45:** Require use of stormwater management techniques to improve water quality and reduce impact on municipal water treatment facilities.
- **Policy C-P49:** Prioritize the implementation of green infrastructure solutions, such as permeable pavements, vegetated swales, and rain gardens, to manage stormwater runoff as part of capital improvement projects.
- **Policy C-P50:** New developments and redevelopment projects shall incorporate best practices for stormwater management that mimic natural hydrological processes, reducing the burden on conventional drainage systems.

Safety Element

- **Policy S-P5:** Continue to ensure, through the development review process, that future developments do not increase peak storm flows and do not cause flooding of downstream facilities and properties. Additionally, the City shall ensure that storm drainage facilities are constructed to serve new development adequate to storm runoff generated by a 100-year storm.

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- **Policy S-P10:** Update Zoning Ordinance and development review process as needed to reduce peak-hour stormwater flow and increase groundwater recharge. These may include provisions for:
 - Constructing parking areas and parking islands without curbs and gutters, to allow stormwater sheet flow into vegetated areas.
 - Grading that lengthens flow paths and increases runoff travel time to reduce the peak flow rate.
 - Installing cisterns or sub-surface retention facilities to capture rainwater for use in irrigation and non-potable uses.
- **Policy S-P11:** Update City street design standards to allow for expanded stormwater management techniques. These may include:
 - Canopy trees to absorb rainwater and slow water flow, and address extreme heat.
 - Directing runoff into or across vegetated areas to help filter runoff and encourage groundwater recharge.
 - Disconnecting impervious areas from the storm drain network and maintain natural drainage divides to keep flow paths dispersed.
 - Providing naturally vegetated areas in close proximity to parking areas, buildings, and other impervious expanses to slow runoff, filter out pollutants, and facilitate infiltration.
 - Directing stormwater into vegetated areas or into water collection devices.
 - Using devices such as bioretention cells, vegetated swales, infiltration trenches and dry wells to increase storage volume and facilitate infiltration.
 - Diverting water away from storm drains using correctional drainage techniques.

4.10.3.4 ENVIRONMENTAL IMPACTS

UTIL-7	As with the 2010 General Plan, the proposed project would not require or result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects (Threshold U-5).
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The 2009 Certified EIR concluded that while the City would need to expand its stormwater drainage system in order to accommodate the demand under the 2010 General Plan, the impacts associated with stormwater drainage infrastructure would be less than significant. The construction and operation impacts associated with the expansions to the stormwater drainage infrastructure were analyzed throughout the 2009 Certified EIR and would require additional project level environmental analysis when plans are proposed.

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Like the approved project, the new development and/or redevelopment under the proposed project would result in an increase in impervious surfaces, which in turn could result in an increase in stormwater runoff, higher peak discharges to drainage channels, and the potential to cause nuisance flooding in areas without adequate drainage facilities. The City of Lodi is covered under the State's Phase II MS4 permit which requires the City to adopt a SWMP. As part of the SWMP, the City jointly adopted a Post-Construction Standards Manual that requires the preparation of a Project Stormwater Plan. For small projects, the Project Stormwater Plan must include basic project information, proposed site design measures, and results from the Post-Construction Stormwater Runoff Calculator showing the change in pre-project and post-project stormwater runoff. For larger projects that are designated Regulated Projects, the Project Stormwater Plan must include additional information, such as a site assessment, proposed source control measures to be implemented, proposed stormwater treatment control measures, and a proposed Operations and Maintenance Plan. For projects designated Hydromodification Management Projects, the Project Stormwater Plan must include, in addition to the information required for Regulated Projects, proposed hydromodification control measures and modeling results.

The Phase II MS4 permit and Post-Construction Standards Manual require that all projects which generate runoff from an 85th percentile, 24-hour storm event must treat stormwater onsite. Priority development projects must also adhere to the hydromodification requirements of the MS4 permit and must mitigate the flow rate of stormwater runoff produced by a rain event equal to at least 0.2 inches per hour intensity. This would minimize the amount of stormwater runoff from new development and redevelopment sites within the City. The 2024 General Plan will also maintain the existing General Plan's policies that reduce impacts to stormwater infrastructure including GM-P8, GM-P9, GM-P10 through GM-P11, C-P29, C-P30, C-P43, C-P44, C-P45, C-49, and C-P50.

Also, as part of the permitting process, future development would be required to pay stormwater-related IMFP that fund future improvements to the City's stormwater drainage system. Planned improvements to the City's storm drainage system are implemented through the Capital Improvement Program and the City's Storm Drainage Master Plan updates. The prioritized projects in the latest CIP involving stormwater infrastructure focus on the repair of existing infrastructure and expanding the capacity of the City's storm water drainage system to increase its resiliency against high volume storms. The unconstructed improvements listed in the 2012 Stormwater Drainage Master Plan would be constructed as new development is proposed within these areas of the City.

When compared to the 2010 General Plan, the 2024 General Plan would result in a lesser level of development. While the 2024 General Plan would increase the development capacity of some areas within the City core, it does not involve changes that would increase development capacity within the undeveloped portions of the City and SOI that would require the revision of the City's existing Storm Drainage Master Plan. Therefore, the proposed project would not result in any new or increased impacts when compared to the approved project, and impacts would continue to be less than significant.

Significance Without Mitigation: Less than significant.

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4.10.3.5 CUMULATIVE IMPACTS

UTIL-8	As with the 2010 General Plan, the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to stormwater infrastructure.
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The scope for cumulative impacts is the City of Lodi Wastewater Utility’s service area which is contiguous with the boundaries of the City. The service area of the Wastewater Utility would expand to include newly annexed areas of the City’s SOI as applicable during the horizon of the proposed project. As discussed above, the impacts of the proposed project on stormwater drainage infrastructure, like the approved project, would be less than significant. All cumulative projects would be required to comply with the City municipal code, as well as the conditions of the Phase II MS4 permit and Post-Construction Standards Manual, which would minimize stormwater runoff.

Development within the City would require conformance with State and City regulations that would reduce hydrology and infrastructure construction impacts to less than significant levels. Any new development in the City would be subject to the General Plan policies listed in Section 4.9.3.3 in addition to City design guidelines, zoning codes, and other applicable City requirements that reduce impacts related to hydrology and stormwater drainage facilities. More specifically, potential changes related to stormwater flows, drainage, impervious surfaces, and flooding would be minimized by the implementation of stormwater control measures, retention, infiltration, and low-impact-development measures per the SWMP and review by the City’s Public Works Department to integrate measures to reduce potential stormwater drainage and flooding impacts.

In combination with past, present, and reasonably foreseeable projects, proposed implementation of the 2024 General Plan would not result in any new or greater cumulatively considerable impacts to stormwater infrastructure when compared to the 2010 General Plan and cumulative impacts would be less than significant.

Significance Without Mitigation: Less than significant.

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4.10.4 SOLID WASTE

4.10.4.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal Regulation

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act of 1976 (Title 40 of the Code of Federal Regulations, Part 258), contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design (liners, leachate collection, run-off control, etc.), groundwater monitoring, and closure of landfills.

State Regulation

Integrated Waste Management Act

California's Integrated Waste Management Act of 1989 (AB 939) set a requirement for cities and counties to divert 50 percent of all solid waste from landfills as of January 1, 2000, through source reduction, recycling, and composting. The Act required that each city and county prepare a Source Reduction and Recycling Element to be submitted to the Department of Resources Recycling and Recovery (CalRecycle), a department in the California Natural Resources Agency. AB 939 also established a goal for all California counties to provide at least 15 years of ongoing landfill capacity.

In 2007, SB 1016 amended AB 939 to establish a per capita disposal measurement system. The per capita disposal measurement system is calculated as a jurisdiction's reported total disposal of solid waste divided by a jurisdiction's population. CalRecycle sets a target per capita disposal rate for each jurisdiction. Each jurisdiction must submit an annual report to CalRecycle with an update of its progress in implementing diversion programs and its current per capita disposal rate.

California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act (AB 1327) requires development projects to set aside areas for collecting and loading recyclable materials. The Act required CalRecycle to develop a model ordinance for adoption by any local agency relating to adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model, or an ordinance of their own, governing adequate areas in development projects for collection and loading of recyclable materials.

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California Short-Lived Climate Pollutants Act (Senate Bill 1383)

SB 1383 focuses on the elimination of methane gas created by organic materials in landfills and sets targets to achieve a 50 percent reduction in the statewide disposal of organic waste by 2020 and a 75 percent reduction by 2025. Organic waste makes up half of what Californians send to landfills. SB 1383 requires all businesses and residents to divert organic materials (including food waste, yard waste, and soiled paper products) from the landfill. The regulation took effect on January 1, 2022, and requires that organics collection service be provided to all residents and businesses. Also, an edible food recovery program must be established by 2025 with the goal of recovering edible food for human consumption.

Mandatory Commercial Recycling Act (Assembly Bill 341)

Assembly Bill 341 (Chapter 476) increases the statewide solid waste diversion goal to 75 percent by 2020, and mandates recycling for businesses producing four or more cubic yards of solid waste per week or multi-family residential dwellings of five or more units. AB 341 is designed to reduce greenhouse gas (GHG) emissions in the state by 5 million metric tons of carbon dioxide equivalents. Waste Management provides businesses and property owners with composting and recycling services in the City of Lodi.

Mandatory Organics Recycling Act (Assembly Bill 1826)

AB 1826, which was enacted in 2014 and took effect in 2016, mandates organic waste recycling for businesses and multifamily dwellings with five or more units. Starting January 1, 2020, all generators of 2 cubic yards or more of garbage, recycling, and compost combined per week must recycle organic waste. Organic waste includes food scraps, food-soiled paper waste, yard trimmings, and landscape materials. Organic waste can be recycled through composting, mulching, and anaerobic digestion which produces renewable energy and fuel. In addition to recycling food scraps, donating surplus food to local food banks can be part of the AB 1826 compliance effort. Multi-family dwellings do not need to have food-waste recycling on-site but must recycle yard and landscape materials. CR&R Environmental Services offers these services to businesses and residents to comply with the requirements of AB 1826.

CALGreen Building Code

The latest 2022 CALGreen Code became effective on January 1, 2023. Section 5.408, Construction Waste Reduction Disposal and Recycling, mandates that, in the absence of a more stringent local ordinance, a minimum of 65 percent of non-hazardous construction and demolition debris must be recycled or salvaged. The code requires applicants to prepare and submit a Construction and Demolition Recycling & Waste Reduction Plan, which is submitted to the City for approval. For on-site sorting of construction debris, which is submitted to the City for approval. The plan must:

- Identify the materials to be diverted from disposal by recycling, reuse on the project, or salvage for future use or sale.
- Specify if materials will be sorted on-site or mixed for transportation to a diversion facility.

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- Identify the diversion facility where the material collected will be taken.
- Supply weight tags for the entire period of the project for compliance review.

Regional Regulation

San Joaquin County Department of Public Works (Solid Waste Division)

The Solid Waste division of the Public Works Department of San Joaquin County oversees the operations of several solid waste facilities and sanitary landfills. The County owns the Lovelace Materials Recovery Facility and Transfer Station and the North County Recycling Center and Sanitary Landfill as well as the privately operated Foothill Sanitary Landfill and Hazardous Household Waste Facility (San Joaquin 2024).

Local Regulation

City of Lodi Municipal Code

The City of Lodi Municipal Code's Title 13, Chapter 13.16, Solid Waste, provides standards for solid waste collection and disposal in the City. This includes the requirement for all residential or commercial properties to utilize the City's refuse collection and transportation services and pay the fees for those services as set by the City. Any industrial waste collected or transported in the City must have a permit from the Public Works Department. This chapter also has standards for organic waste collection; single-family and commercial generators receive organic waste collection service.

City of Lodi General Plan

The existing City of Lodi General Plan includes the following policies from the Growth Management Element related to solid waste disposal:

- **Policy GM-G2:** Provide infrastructure—including water, sewer, stormwater, and solid waste/recycling systems—that is designed and timed to be consistent with projected capacity requirements and development phasing.
- **Policy GM-P20:** Continue to improve waste diversion rates through recycling and resource conservation measures. Support waste reduction and recycling programs through public education.

Existing Conditions

The City of Lodi contracts with Waste Management to provide collection, transportation, and disposal of residential and commercial garbage as well as collection of recyclable materials. Garbage is collected weekly, and recyclable materials and yard and garden waste are collected on alternating weeks. The City uses a three-cart system to reduce the amount of trash sent to landfills.

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Residential and commercial solid waste is hauled to the North County Recycling Center and Sanitary Landfill (North County Landfill) at 17720 East Harney Lane, owned and operated by San Joaquin County. The North County Landfill is a Class III landfill; that is, one that only accepts non-hazardous solid waste. It has a permitted capacity of approximately 41,200,000 cubic yards and a maximum permitted throughput of 825 tons per day. As of the beginning of 2010, the North County Landfill had remaining capacity of 35,400,000 cubic yards, which at the maximum permitted throughput would allow the landfill to accept solid waste to the year 2048 (CalRecycle 2019).

Industrial solid waste originates from manufacturing facilities and factories as well as construction and demolition projects. Industrial waste also means solid waste produced by any person, firm, or corporation primarily engaged in the business of processing and manufacturing for the purpose of wholesale. Businesses interested in collecting and transporting industrial waste within the City limits must first obtain a permit from the Public Works Department. Permitted industrial waste haulers are only allowed to service the businesses classified by the City as industrial customers.

Compliance with AB 939 is measured in part by comparing actual disposal rates for residents and employees to target rates; actual rates at or below target rates are consistent with AB 939. Target disposal rates for Lodi in 2022 were 8.7 pounds per day (ppd) per resident and 23.7 ppd per employee; actual disposal rates were 6.7 ppd per resident and 16.3 ppd per employee (CalRecycle 2022). Therefore, the solid waste diversion goals for the City have been met.

4.10.4.2 THRESHOLDS OF SIGNIFICANCE

As lead agency, the City has determined that a project would normally have a significant effect on the environment if it:

- U-6 Would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- U-7 Would not comply with federal, state, and local statutes and regulations related to solid waste.

4.10.4.3 PROPOSED GENERAL PLAN POLICIES

The following goals, policies, and actions from the proposed General Plan are applicable to solid waste disposal services. These policies have not been modified as part of the 2024 General Plan Update.

- **Policy GM-G2:** Provide infrastructure—including water, sewer, stormwater, and solid waste/recycling systems—that is designed and timed to be consistent with projected capacity requirements and development phasing.
- **Policy GM-P20:** Continue to improve waste diversion rates through recycling and resource conservation measures. Support waste reduction and recycling programs through public education.

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4.10.4.4 ENVIRONMENTAL IMPACTS

UTIL-9	As with the 2010 General Plan, existing and/or proposed facilities would be able to accommodate solid waste generated from development under the 2024 General Plan and comply with related solid waste regulations. (Thresholds U-6 and U-7)
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The 2009 Certified EIR determined that the North County Landfill would have sufficient capacity for the waste generated under development pursuant to the 2010 General Plan. The 2024 General Plan would result in less development at buildout compared to the existing General Plan. As shown in Table 4.10-5, *Comparison of Solid Waste Generation Between the Approved Project and Proposed Project (Tons/Year)*, the proposed project would result in 190,092 tons per year of waste generation by its buildout, under the assumption that all land within the SOI is annexed. However, this would be 2,407 tons less per year than buildout under the 2010 General Plan. Additionally, these numbers are conservative because, with continued recycling and waste reduction programs implemented by the City and Waste Management, the waste generation rates would be reduced over time.

TABLE 4.10-5 COMPARISON OF SOLID WASTE GENERATION BETWEEN APPROVED PROJECT AND PROPOSED PROJECT (TONS/YEAR)

	City	SOI	City + SOI
Approved Project (2010 General Plan Buildout)			
Residents	85,681	15,978	101,660
Employees	84,382	6,458	90,840
Total Waste Generation	170,063	22,437	192,500
Proposed Project (2024 General Plan Buildout)			
Residents	85,681	14,812	100,493
Employees	83,644	5,955	89,599
Total Waste Generation	169,325	20,767	190,092
Net Change (Proposed – Approved)			
Residents	0	-1,167	-1,167
Employees	-738	-503	-1,240
Total Waste Generation	-738	-1,669	-2,407

Source: CalRecycle 2022.

Notes: Waste generation is based on the City's 2022 average disposal rates of 6.7 ppd for residents and 16.3 ppd for employees.

See Chapter 3, Table 3-2, for more information about the buildout projections.

Waste generation at buildout of the 2024 General Plan would be 520.8 tons per day, which would represent 63 percent of the North County Landfill's daily maximum throughput.² This estimate conservatively assumes that all of the generated waste is landfilled. As discussed in the 2009 Certified EIR, the North County Landfill is scheduled to undergo an expansion that would allow the maximum daily disposal limit to increase from

² 520.8 tons per day divided by 825 tons per day = 0.631 = 63 percent.

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825 to 1,200 tons of refuse per day. In addition, a portion of the waste generated in the City is diverted from landfill disposal through recycling and composting. Although CalRecycle does not provide the recycling rate for the City, California as a whole diverted 42 percent of total waste in 2020 (CalRecycle 2021a). The City also diverted approximately 5,500 tons of organic waste in 2021 (CalRecycle 2021b).

Development under the proposed General Plan would also be required to comply with all State requirements to reduce the volume of solid waste through recycling and organic waste diversion. The City's per capita disposal rates of 6.7 ppd per resident and 16.3 ppd per employee are below the CalRecycle targets of 8.7 pounds per day (ppd) for residents and 23.7 ppd for employees. In addition, all potential future development pursuant to the 2024 General Plan would comply with Division 4.4, Material Conservation and Resource Efficiency, of the CALGreen Code, which requires that at least 65 percent of nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

Potential future development would also comply with AB 341, which mandates recycling for commercial and multifamily residential land uses as well as schools and school districts. All jurisdictions in California are required to provide organic waste collection services to all residents and businesses, beginning in 2022 and in accordance with SB 1383. The City currently complies with all applicable federal, State, and local solid waste regulations, and solid waste, recycling, and green waste collection services are available to all residents and commercial businesses in Lodi.

As shown in Table 4.10-5, the proposed project would result in 2,407 fewer tons of waste per year than the approved project. Therefore, the proposed project would not result in any new or more significant impacts when compared to the approved project. Implementation of the 2024 General Plan would not generate solid waste in excess of State and local standards, or in excess of the capacity of the landfills, and would comply with all applicable regulatory requirements. Impacts would be less than significant.

Significance Without Mitigation: Less than significant.

4.10.4.5 CUMULATIVE IMPACTS

UTIL-10	As with the 2010 General Plan, the proposed project, in combination with past, present, and reasonably foreseeable development, would not result in significant impacts with respect to solid waste.
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The scope of cumulative impacts is San Joaquin County, which is the service area of the waste disposal facilities operated by the County. Cumulative projects would result in increased generation of solid waste that would need to be processed at the County's landfills. The North County Landfill has a daily maximum throughput of 825 tons per day, a remaining capacity of approximately 35,400,000 cubic yards, and an estimated closure date in 2048. The County would continue to plan and implement the expansions

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necessary to accommodate demand within its service area through its Countywide Integrated Waste Management Plan.

Other projects in the County would recycle and compost parts of their solid waste in accordance with the California Integrated Waste Management Act (AB 939), AB 341, AB 1826, and CALGreen Section 5.408. AB 939 requires the County to maintain 15 years of available countywide solid waste disposal capacity. Therefore, development according to the 2024 General Plan would not create demands for solid waste services that would exceed the capabilities of the County's waste management system. Continued compliance with the applicable regulations and an increase in recycling and landfill diversion rates would ensure that solid waste cumulative impacts would be less than significant. The proposed project would also result in less waste generation when compared to the approved project.

Significance Without Mitigation: Less than significant.

4.10.5 OTHER UTILITIES

4.10.5.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal Regulation

National Energy Policy

Established in 2001 by the National Energy Policy Development Group, the National Energy Policy is designed to help the private sector and state and local governments promote dependable, affordable, and environmentally sound production and distribution of energy for the future. Key issues addressed by the energy policy are energy conservation, repair and expansion of energy infrastructure, and ways of increasing energy supplies while protecting the environment.

Energy Policy Act of 2005

Passed by Congress in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. This Act includes tax incentives for energy conservation improvements in commercial and residential buildings, fossil fuel production and clean coal facilities, and construction and operation of nuclear power plants, among other things. Subsidies are also included for geothermal, wind energy, and other alternative energy producers.

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Energy Independence and Security Act of 2007

Signed into law in December 2007, the Energy Independence and Security Act contains provisions designed to increase energy efficiency and the availability of renewable energy. The Act contains provisions for increasing fuel economy standards for cars and light trucks, while establishing new minimum efficiency standards for lighting as well as residential and commercial appliance equipment.

Natural Gas Pipeline Safety Act of 1968

The Natural Gas Pipeline Safety Act of 1968 authorizes the United States Department of Transportation to regulate pipeline transportation of flammable, toxic, or corrosive natural gas and other gases as well as the transportation and storage of liquefied natural gas. The Pipeline and Hazardous Materials Safety Administration within the Department of Transportation develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6-million-mile pipeline transportation system. The regulations enacted under this act have been updated several times. The latest revision is dated May 2023 and includes additional safety regulations for gas transmission pipelines, including repair criteria, integrity management improvements, cathodic protection, and other inspection and maintenance procedures. The regulations are encoded in 49 Code of Federal Regulations, Part 192.

State Regulation

California Energy Commission

The California Energy Commission (CEC) was created in 1974 under the Warren-Alquist Act as the State's principal energy planning organization to meet the energy challenges facing the state in response to the 1973 oil embargo. The Warren-Alquist Act is updated annually to address current energy needs and issues, and its latest revision is dated January 2023. The CEC is charged with six basic responsibilities when designing state energy policy:

- Forecast statewide electricity needs.
- License power plants to meet those needs.
- Promote energy conservation and efficiency measures.
- Develop renewable energy resources and alternative energy technologies.
- Promote research, development, and demonstration.
- Plan for and direct the state's response to energy emergencies.

California Public Utilities Commission

Adopted in September 2008 and updated in January 2011, the California Public Utilities Commission (CPUC) Long Term Energy Efficiency Strategic Plan provides a framework for energy efficiency in California through the year 2020 and beyond. It articulates a long-term vision, as well as goals for each economic sector,

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identifying specific near-, mid-, and long-term strategies to assist in achieving these goals. The plan sets forth the following four goals, known as “Big Bold Energy Efficiency Strategies,” to achieve significant reductions in energy demand:

- All new residential construction in California will be zero net energy by 2020.
- All new commercial construction in California will be zero net energy by 2030.
- Heating, Ventilation and Air Conditioning (HVAC) will be transformed to ensure that its energy performance is optimal for California’s climate.
- All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

The CPUC and CEC have adopted the following goals to achieve zero net energy levels by 2030 in the commercial sector:

Goal 1: New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030.

Goal 2: 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation.

Goal 3: Transform the commercial lighting market through technological advancement and innovative utility initiatives.

California Energy Code

The State of California provides a minimum standard for energy conservation through California Code of Regulations (CCR), Title 24, Part 6, commonly referred to as the California Energy Code. The California Energy Code was first adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977. The standards are updated on a three-year cycle to allow for consideration and possible incorporation of new energy efficiency technologies and methods. In August 2021, the CEC adopted the 2022 California Energy Code, which went into effect on January 1, 2023. The 2022 standards require mixed-fuel single-family homes to be electric ready to accommodate replacement of gas appliances with electric appliances. In addition, the new standards also include prescriptive photovoltaic systems and battery requirements for high-rise, multifamily buildings (i.e., more than three stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers (CEC 2021).

California Green Building Standards

On July 17, 2008, the California Building Standards Commission adopted the nation’s first green building standards. CALGreen (24 CCR Part 11) was adopted as part of the California Building Standards Code. It includes mandatory requirements for new residential and nonresidential buildings throughout California.

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CALGreen is intended to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the governor. The latest 2022 CALGreen Code became effective on January 1, 2023.

The CALGreen Code includes provisions to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction. CALGreen contains requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, etc. The code provides for design options, allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.

2016 Appliance Efficiency Regulations

The 2016 Appliance Efficiency Regulations (20 CCCR Sections 1601–1608), combined with federal standards, set minimum efficiency levels for energy and water consumption in products, such as consumer electronics, household appliances, and plumbing equipment (CEC 2023a). Twenty-three categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state, and those designed and sold exclusively for use in recreational vehicles or other mobile equipment. These regulations exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

California Energy Benchmarking and Disclosure (AB 802)

The Building Energy Benchmarking Program is mandated under AB 802 and requires owners of large commercial and multifamily buildings to report energy use to the CEC by June 1 annually. This program applies to all buildings with more than 50,000 square feet of gross floor area and owners of multifamily residential buildings with more than 50,000 square feet and 17 or more utility accounts. The bill requires each utility, upon the request and authorization of the owner, owner’s agent, or operator of a building covered under the regulation, to deliver or provide aggregated energy usage data for a covered building. The required energy usage shall be reported to the CEC through the Energy Star Portfolio Manager.

California Renewable Portfolio Standards

A major component of California’s Renewable Energy Program is the renewables portfolio standard established under SB 1078 (Sher) and SB 107 (Simitian). The standard requires that a specified percentage of the electricity that utilities provide comes from renewable resources. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. SB 1020, signed into law on September 16, 2022, requires renewable energy and zero-carbon resources to supply 90 percent of all retail

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electricity sales by 2035 and 95 percent by 2040. Additionally, SB 1020 requires all State agencies to procure 100 percent of electricity from renewable energy and zero-carbon resources by 2035.

CPUC Natural Gas Regulations

The CPUC regulates natural gas utility rates and services as well as the transportation of natural gas over the extensive transmission and distribution pipeline systems. The CPUC also regulates gas storage facilities. The Gas Safety and Reliability Branch of the CPUC ensures that natural gas pipeline systems are designed, constructed, operated, and maintained according to the safety standards set by the CPUC and the federal government. The regulations are provided in the CPUC General Order No. 112-E and the Natural Gas Pipeline Safety Act of 2011.

Local Regulation

City of Lodi Municipal Code

The primary ordinance applicable to energy infrastructure within the City of Lodi Municipal Code is Title 13, Chapter 13.20, Electrical Service, which establishes electrical service fees and standards for electrical service installations.

City of Lodi General Plan

The existing City of Lodi General Plan includes the following policies from the Conservation Element related to energy infrastructure.

- **Policy 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.
- **Policy C-P40:** Reduce energy consumption within City government facilities and motor fleets.
- **Policy C-P41:** Encourage the use of passive and active solar devices such as solar collectors, solar cells, and solar heating systems into the design of local buildings. Promote voluntary participation in incentive programs to increase the use of solar photovoltaic systems in new and existing residential, commercial, institutional, and public buildings.
- **Policy C-P42:** Continue to offer rebates to residential, commercial, industrial and municipal customers of Lodi Electric Utility who install photovoltaic (PV) systems or that participate in the Lodi Energy Efficient Home Improvement Rebate Program. Ensure that rebate programs are well advertised to the community and offer rebates that are sufficient to gain community interest and participation.
- **Policy C-P46:** Promote public education energy conservation programs that strive to reduce the consumption of natural or human-made energy sources.

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Existing Conditions

Lodi Electric Utility (LEU) provides electricity service to the incorporated areas within the City while PG&E provides electricity service to the unincorporated areas within the City's SOI. PG&E also provides natural gas service to the City and its SOI (CEC 2024a).

Pacific Gas and Electric Company

Electricity

PG&E is a publicly traded utility company that generates, purchases, and transmits energy under contract with the CPUC. Its service territory is 70,000 square miles in area, roughly extending north to south from Eureka to Bakersfield, and east to west from the Sierra Nevada range to the Pacific Ocean. The electricity distribution system of PG&E consists of 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines (PG&E 2024). PG&E owns and maintains above and below ground networks of electric and gas transmission and distribution facilities throughout the city. Total electricity consumption in PG&E's service area was 104,695 gigawatt hours in 2022 (CEC 2024b).³

PG&E electricity is generated by a combination of sources such as coal-fired power plants, nuclear power plants, and hydro-electric dams, as well as newer sources of energy, such as wind turbines and photovoltaic plants or "solar farms." "The Grid," or bulk electric grid, is a network of high-voltage transmission lines linked to power plants within the PG&E system. The distribution system, comprised of lower voltage secondary lines, is at the street and neighborhood level and consists of overhead or underground distribution lines, transformers, and individual service "drops" that connect to the individual customer.

Natural Gas

PG&E gas transmission pipeline systems serve approximately 4.5 million natural gas customers in northern and central California (PG&E 2024). The system is operated under an inspection and monitoring program. The system operates in real time on a 24-hour basis, and includes leak inspections, surveys, and patrols of the pipelines. Total natural gas consumption in PG&E's service area was 4,449,195,887 therms for 2022 (CEC 2024c).

Lodi Electric Utility

LEU is a customer-owned, city-operated utility founded in 1910 that has provided reliable electricity for over 100 years (LEU 2024). In the 1960s, LEU joined forces with a group of 15 other customer-owned utilities under the Northern California Power Agency (NCPA). LEU operates 312 miles of power lines and 4 substations within its 14 square miles of its service area. LEU's 2023 system load was 447.3 gigawatt hours (GWh) (LEU 2024).

³ A gigawatt is equal to one million kW.

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More than 40 percent of Lodi's power resources for 2022 were sourced from carbon-free resources. Sources of electricity sold by LEU in 2022, the latest year for which data are available, were (LEU 2022):

- 31.5 percent renewable, consisting mostly of geothermal and solar
- 13.3 percent large hydroelectric
- 19.6 percent natural gas
- 35.6 percent unspecified power⁴

Capital Improvement Projects

The City's 2024-2025 Annual Budget identifies several ongoing CIPs from the LEU. Most projects requesting funding for 2025-2030 include upgrades and maintenance of existing facilities. The 2024-2025 budget also identifies funding for the planning, design and construction of all electrical infrastructure equipment and facilities to support completion of a new State owned and operated natural gas plant within the Lodi. This project would be operated by the Department of Water Resources during emergency situations to protect the integrity of the statewide power grid (Lodi 2024b).

Telecommunications and Internet Providers

Telecommunications services include wireless internet, cell phone and land line telephone, cable television, and satellite television. There are numerous telecommunication and internet providers that serve the City. Telecommunication providers include AT&T, T-Mobile, and Verizon. Internet providers include Spectrum, Xfinity, AT&T, Frontier, and T-Mobile. Multiple choices give residents and businesses a variety of options when choosing telecommunication providers. The current infrastructure is in place and sufficient to serve existing and future customers in Lodi and the surrounding area.

4.10.5.2 THRESHOLDS OF SIGNIFICANCE

As lead agency, the City has determined that a project would normally have a significant effect on the environment if it would:

- U-8 Require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

⁴ Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

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4.10.5.3 PROPOSED GENERAL PLAN POLICIES

The following goals, policies, and actions from the proposed General Plan are applicable to energy and telecommunications services. These policies have not been modified as part of the 2024 General Plan Update.

- **Policy C-P58:** 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..
- **Policy C-P60:** Reduce energy consumption within City government facilities and motor fleets.
- **Policy C-P61:** Encourage the use of passive and active solar devices such as solar collectors, solar cells, and solar heating systems into the design of local buildings. Promote voluntary participation in incentive programs to increase the use of solar photovoltaic systems in new and existing residential, commercial, institutional, and public buildings. Study the fiscal feasibility of an incentive program for property owners who install photovoltaic or comparable solar energy generating devices.
- **Policy C-P65:** Promote public education energy conservation programs that strive to reduce the consumption of natural or human-made energy sources.

4.10.5.4 ENVIRONMENTAL IMPACTS

UTIL-11	As with the 2010 General Plan, the proposed project would not require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (Threshold U-8).
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The 2009 Certified EIR did not directly assess impacts to electricity, natural gas, and telecommunications infrastructure but did assess the energy demand for electricity and gas services in Section 3.6, *Climate Change and Greenhouse Gases*. The 2009 EIR found that population and employment growth envisioned by the approved project might increase energy and gas demand. However, compliance with energy saving building codes, the use of alternative modes of transportation, and existing General Plan policies would reduce energy consumption to a less than significant level.

Electricity

Electrical service to the City is provided by PG&E and LEU through connections to existing off-site electrical lines and new on-site infrastructure. As shown in Table 4.2-3, *Year 2045 Electricity Consumption*, in Section 4.3, *Energy*, by horizon year 2045, electricity use in the City would increase to 538 GWh per year but would decrease by 7.9 GWh when compared to the 2010 General Plan buildout. Total electricity consumption in

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LEU's service area is forecast to increase to approximately 632 GWh by 2040, which is a growth of approximately 2.1 percent annually (CEC 2023). Therefore, the City's projected consumption of 538 GWh under the 2024 General Plan would not outpace the 632 GWh projected for the LEU service area by 2040.

Additionally, the 2024 General Plan includes policies that would result in further decreases to electricity consumption, including Policies C-P58, C-P60, C-P61, and C-P45. Future development would also be required to comply with the current and future updates to the Energy Code (24 CCR Part 6) and CALGreen (24 CCR Part 11), which would contribute to reducing the energy demands. New and replacement buildings would also use new energy-efficient appliances and equipment, pursuant to the Appliance Efficiency Regulations (20 CCR Sections 1601–1609).

While the proposed project, like the approved project, would require the construction of new electricity facilities to meet the demand of additional development in the City, such facilities would be identified in future versions of the City's Capital Improvement Program. The environmental impacts associated with the construction and operation of these facilities are part of the development associated with the proposed project and have therefore been analyzed throughout this SEIR. Due to the decrease in electricity demand between the approved project and proposed project, the 2024 General Plan would have less than significant impacts with respect to electricity infrastructure. The proposed project would not require LEU to obtain new or expanded electricity supplies, and there would be no new or increased impacts when compared to the approved project.

Natural Gas

As shown in Table 4.2-4 of Section 4.2, the natural gas use under the proposed project would be 20,553,669 therms annually. This represents approximately 0.46 percent of the 4.45 billion therms consumed in the PG&E service area in 2022. By 2045, natural gas use in the City would decrease by 280,785 therms annually, or approximately 1 percent, compared to the approved project. Additionally, the policies in Section 4.9.5.3 and compliance with the Energy Code and CALGreen would contribute to reducing the energy demands of development under the proposed project. It is anticipated that each update to the Energy Code and CALGreen will result in greater building energy efficiency and move closer to buildings achieving zero net energy usage.

As with the construction of new electricity infrastructure, impacts associated with the construction of new natural gas infrastructure needed to serve future demand in the City is analyzed in this SEIR as part of the proposed project. Development under the 2024 General Plan would not require PG&E to obtain new or expanded natural gas supplies, and there would be no new or increased impacts when compared to the approved project.

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Telecommunications

Infrastructure supporting telecommunications services associated with the proposed project would be provided and installed in compliance with all State and local regulations. Furthermore, a number of franchised telecommunications providers are available in the region, and no significant expansion or construction of the telecommunications network is anticipated as a result of implementation of the proposed project. Like the approved project, the proposed project would not require new or expanded telecommunication facilities, the construction or relocation of which could cause significant environmental effects, and impacts would be less than significant.

Significance without Mitigation: Less than significant.

4.10.5.5 CUMULATIVE IMPACTS

UTIL-12	The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to energy infrastructure.
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The area considered for cumulative impacts to is the LEU service area for electricity supplies and facilities, PG&E's service area for natural gas, and the service boundaries of the various telecommunications providers.

The CPUC has identified the Integrated Energy Policy Report as "the appropriate venue for considering issues of load forecasting, resource assessment, and scenario analyses, to determine the appropriate level and ranges of resource needs for load serving entities in California" (CEC 2020). The report shows that California's electricity sector is leading efforts to reduce GHG emissions and there has been an increase in electricity consumption of only 10 percent while California's economy grew by 54 percent between 2000 and 2018 (CEC 2020). Natural gas consumption is expected to level out between 2020 and 2030 with no significant increase due to energy savings from new building standards and the implementation of City and County ordinances that require new construction to have all-electric appliances and heating (CEC 2020).

In addition, all future projects developed in the LEU and PG&E service areas would implement the requirements of the California Energy Code and CALGreen Building Code. New buildings would also use new energy-efficient appliances and equipment pursuant to the Appliance Efficiency Regulations. Counties and cities review project design plans against these codes and ensure compliance before issuing construction permits. These measures would reduce the overall consumption of electricity and natural gas.

The energy providers and telecommunications providers that serve the City indicate that they have the capability to serve future increases in population within their service areas without significant changes to the existing infrastructure. In addition, the 2024 General Plan includes policies that would contribute to minimizing inefficient, wasteful, or unnecessary energy consumption and ensure compliance with State, regional, or local plans for renewable energy, therefore avoiding the need for new or expanded electric

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power and natural gas facilities. Therefore, the Proposed General Plan would not result in a cumulatively considerable impact to electric power, natural gas, or telecommunication facilities, and cumulative impacts would be less than significant.

Significance without Mitigation: Less than significant.

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5. Significant Unavoidable Adverse Impacts

At the end of Chapter 1, *Executive Summary*, is a table summarizing the impacts, mitigation measures, and significance levels before and after mitigation. Mitigation measures would reduce the level of impact, but the following impacts would remain significant, unavoidable, and adverse after mitigation measures are applied:

5.1 AIR QUALITY

- **Impact AIR-2:** Implementation of the proposed project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is in nonattainment under applicable federal or State ambient air quality standard.
- **Impact AIR-3:** The proposed project would expose sensitive receptors to substantial pollutant concentrations.

5.2 GREENHOUSE GAS EMISSIONS

- **Impact GHG-1:** The proposed project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

5.3 LAND USE AND PLANNING

- **Impact LU-3:** The proposed project would convert acres of Important Farmland to nonagricultural use.
- **Impact LU-4:** Development of the proposed project would impact identified historic resources.

5.4 NOISE

- **Impact NOI-1:** The project would potentially result in 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 in other applicable local, state, or federal standards.

5.5 TRANSPORTATION

- **Impact TRANS-2:** The project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

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6. *Alternatives to the Proposed Project*

6.1 INTRODUCTION

6.1.1 PURPOSE AND SCOPE

The California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) include a discussion of reasonable project alternatives that would “feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives” (CEQA Guidelines Section 15126.6[a]). As required by CEQA, this chapter identifies and evaluates potential alternatives to the City of Lodi General Plan Update (proposed project).

Section 15126.6 of the CEQA Guidelines explains the foundation and legal requirements for the alternatives analysis in an EIR. Key provisions are:

- “[T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.” (Section 15126.6[b])
- “The specific alternative of ‘no project’ shall also be evaluated along with its impact.” (Section 15126.6[e][1])
- “The no project analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” (Section 15126.6[e][2])
- “The range of alternatives required in an EIR is governed by a ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.” (Section 15126.6[f])
- “Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries..., and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)” (Section 15126.6[f][1]).

ALTERNATIVES TO THE PROPOSED PROJECT

- “Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.” (Section 15126.6[f][2][A])
- An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.” (Section 15126.6[f][3])

For each development alternative, this analysis:

- Describes the alternative.
- Analyzes the impact of the alternative as compared to the proposed project.
- Identifies the impacts of the project that would be avoided or lessened by the alternative.
- Assesses whether the alternative would meet most of the basic project objectives.
- Evaluates the comparative merits of the alternative and the project.

According to Section 15126.6(d) of the CEQA Guidelines, “[i]f an alternative would cause...significant effects in addition those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.”

6.1.2 PROJECT OBJECTIVES

As described in Section 3.3, *Project Objectives*, of Chapter 3, *Project Description*, the following objectives have been established for the proposed project and will aid decision makers in their review of the proposed project, the project’s alternatives, and associated environmental impacts. Specifically, this planning effort is intended to accomplish four primary objectives:

- Establish consistency between developed lands and general plan designations.
- Enhance Land Use Designations.
- Designate land to allow for affordable housing projects.
- Facilitate development in Downtown Lodi.
- Amend the Transportation Element and establish Vehicle Miles Traveled (VMT) thresholds as outlined in the City’s VMT guidelines.

6.1.3 SUMMARY OF SIGNIFICANT AND UNAVOIDABLE IMPACTS

Air Quality

- **Impact AIR-2:** Implementation of the proposed project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is in nonattainment under applicable federal or State ambient air quality standard.
- **Impact AIR-3:** The proposed project would expose sensitive receptors to substantial pollutant concentrations.

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Greenhouse Gas Emissions

- **Impact GHG-1:** The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Land Use and Planning

- **Impact LU-3:** The proposed project would convert acres of Important Farmland to nonagricultural use.
- **Impact LU-4:** The proposed project would involve other changes in the existing environment which, due to their location or nature, would result in the conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.
- **Impact LU-5:** Development of the proposed project would impact identified historic resources.

Noise

- **Impact NOI-1:** The project would potentially result in 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 in other applicable local, state, or federal standards.

Transportation

- **Impact TRANS-2:** The project would conflict or inconsistent with CEQA Guidelines Section 15064.3 (b).

6.1.4 ALTERNATIVES REJECTED FROM FURTHER CONSIDERATION

In accordance with CEQA Guidelines Section 15126.6, there were no alternatives suggested or rejected as infeasible during the Notice of Preparation (NOP) scoping process. However, the City nonetheless identified potential alternatives for consideration, yet ultimately eliminated these alternatives from further analysis in the SEIR. Suitable alternatives are those which:

1. Can substantially reduce the proposed project's significant impact;
2. Can attain most of the basic project objectives;
3. Are potentially feasible; and
4. Are reasonable and realistic.

Alternatives that do not meet each of these four criteria may be eliminated from further consideration in the SEIR. The following alternatives have been considered by the City but rejected for their failure to meet the four criteria and, therefore, will not be analyzed further in this SEIR.

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6.2 ALTERNATIVES CONSIDERED AND REJECTED DURING THE SCOPING/PROJECT PLANNING PROCESS

The following is a discussion of the land use alternatives considered during the planning process and the reasons why they were not selected for detailed analysis in this SEIR. The 2009 Certified EIR also includes alternatives which are rejected and discussed below:

- Alternative A
- Alternative B
- Alternative Location
- No Downtown Development Alternative

6.2.1 ALTERNATIVE A

This alternative was identified under the 2009 Certified EIR.

Alternative A proposes to expand urban growth up to the existing Sphere of Influence (SOI) boundary and south to Armstrong Road, focusing development in a mile-wide band between Harney Land and Armstrong Road, including a Planned Residential Reserve. It allows for Business Park/Office uses with commercial nodes near the Kettleman and Harney Lane interchanges in the southeast. Limited infill development is planned for vacant and underutilized sites in downtown and along Cherokee Lane. Alternative A projects a population of 91,000 residents and 41,000 jobs, resulting in a jobs-to-residents ratio of 0.9.

This alternative is rejected because it does not significantly reduce unavoidable impacts identified in the SEIR. For instance, converting agricultural land in the SOI to nonagricultural uses would still lead to significant and unavoidable impacts. Additionally, expanding urban growth to the SOI boundary and south to Armstrong Road would increase vehicle miles traveled (VMT). Development in the downtown area would proceed under this alternative, leading to continued significant and unavoidable impacts on historic resources. Future construction would also contribute to increased ambient noise levels. Furthermore, this alternative would still result in a cumulative increase in air pollutants and greenhouse gas (GHG) emissions.

For the same reasons as indicated in the 2009 Certified EIR, this alternative is rejected.

6.2.2 ALTERNATIVE B

This alternative was identified under the 2009 Certified EIR.

Alternative B focuses on new development on the west side of the city, beyond the current SOI. It aims to create neighborhoods with a variety of amenities, including services, parks, and schools, centered around walkable hubs with retail, office, and higher-density residential options. A connected street network links these areas to the existing grid. Commercial and business development is planned for the southeast, but in a smaller footprint than in Alternative A. There's also a small commercial node near Highway 12, adjacent to a proposed campus for San Joaquin Delta College. Similar to the proposed General Plan in terms of

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density and land use, Alternative B projects a population of 104,400 residents and 47,000 jobs, resulting in a jobs-to-residents ratio of 0.9. This alternative offers the largest population increase but allows for fewer jobs compared to the proposed General Plan.

Similar to Alternative A, Alternative B is rejected because it does not mitigate any significant unavoidable impacts identified in the SEIR. Its buildout would exceed that of Alternative A and the proposed project, expanding growth west of the city limits in the SOI. This would lead to the loss of valuable agricultural land and an increase in VMT. Development in the downtown area would continue, resulting in ongoing significant and unavoidable impacts. Additionally, future construction would contribute to increased ambient noise levels, and this alternative would still cause a cumulative rise in air pollutants and GHG emissions.

For the same reasons as indicated in the 2009 Certified EIR, this alternative is rejected.

6.2.3 ALTERNATIVE LOCATION

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that can avoid or substantially lessen any significant effects of the project. The key question and first step in the analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR (CEQA Guidelines Section 15126[5][B][1]). Given the nature of the proposed project (adoption of a General Plan for the entire city), it is not possible to consider an off-site alternative. For this reason, an alternative location was considered infeasible pursuant to CEQA Guidelines Section 15126.6(c) and was rejected as a feasible project alternative.

6.2.4 NO DOWNTOWN DEVELOPMENT ALTERNATIVE

The SEIR identified that future development could alter, obstruct, or remove buildings that may qualify as historic. This alternative would include a policy to prevent any projects that would affect potential historic buildings or resources downtown. However, such restrictions could limit the economic viability of these buildings and restrict housing opportunities. Denial or severe limitations on adaptive reuse of these buildings could potentially lead to decay and abandonment.

The proposed project envisions modifications such as adding medium- and high-density housing and creating mixed-use areas within and surrounding Lodi's downtown. However, this alternative would hinder or complicate those efforts. As a result, with fewer residents living near commercial and employment centers, VMT would increase, necessitating that customers and employees drive elsewhere instead for services that could be provided downtown. Given the importance of using and reusing potentially historic buildings for the success of downtown and the necessity for building owners to maintain these structures, this alternative is deemed infeasible and is not evaluated in this SEIR.

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6.3 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on the criteria listed previously, the following alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the proposed project but may avoid or substantially lessen any of the significant effects of the project. These alternatives are analyzed in detail in this section:

- **No Project (Approved Project) Alternative** – This is the only SEIR alternative that is specifically required by the CEQA Guidelines (Section 15126.6[e]). The No Project (Approved Project) Alternative does not represent a no development or no change scenario as the City has an existing General Plan (approved project). This alternative will focus on the potential result of not updating the General Plan (proposed project) to include changes to State law since the adoption of the existing General Plan.
- **No Annexation Alternative** – This alternative was selected to reduce or eliminate the potential to convert prime agricultural land to urban uses. The alternative would establish a no-expansion beyond the existing city limits policy for the General Plan that would prevent annexation, thereby increasing the potential for infill development of properties already in the city.
- **Increased Density Alternative** – In updating the General Plan, the City could explore modifications to the land use pattern. By promoting higher density and intensity, the City can minimize the need for annexation, thereby protecting prime agricultural land from urban development. This approach also has the potential to reduce VMT, leading to improvements in air quality and a decrease in GHG emissions.

An EIR must identify an “environmentally superior” alternative. If the No Project Alternative is identified as environmentally superior, the EIR is then required to identify an environmentally superior alternative from among the others evaluated. Each alternative’s environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior.

6.4 NO PROJECT (APPROVED PROJECT) ALTERNATIVE

The No Project (Approved Project) Alternative is required to discuss the existing conditions at the time the NOP is published and evaluate what would reasonably be expected to occur in the foreseeable future if the proposed project is not approved (CEQA Guidelines, Section 15126.6[e]). According to CEQA, this alternative is also based on current plans and consistent with available infrastructure and community services.

Therefore, the No Project (Approved Project) Alternative assumes that the proposed project would not be adopted, and the development intensity assumed in the existing General Plan would be followed. Additionally, this No Project Alternative would prevent the adoption and implementation of the new policies, strategies, and actions under the proposed General Plan Update that would reduce impacts associated with development in the city. In addition, policies and actions in the proposed Transportation Elements incorporate numerous VMT and GHG-reducing measures that would likely lead to increased use of alternative modes of transportation and other types of reductions in VMT and GHG emissions. These policies include:

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- **Policy T-P50:** Continue to implement the SB 743 Implementation Guidelines for City of Lodi January 2025 that reduces the total vehicle miles of traveled (VMT) per household by making efficient use of existing transportation facilities and by providing for more direct routes for pedestrians and bicyclists through the implementation of “smart growth” and sustainable planning principles.
- **Policy T-P52:** Within its SB 743 Implementation Guidelines, the City shall identify those types of projects for which VMT impacts are considered less-than-significant and shall also identify those types of projects that are likely to exceed the City’s VMT thresholds. Consistent with Policy T-P51, the City’s SB 743 Guidelines shall be periodically reviewed and updated as needed to maintain consistency with State VMT reduction guidance and regulations.
- **Policy T-P53:** Development projects shall be reviewed for consistency with the City’s then-current SB 743 Implementation Guidelines, as adopted at the time of development project review, or for consistency with any other VMT reduction criteria as may be adopted by the City and in effect at the time of project review.
- **Policy T-P55:** For projects determined to exceed the City’s VMT thresholds pursuant to the City’s then-current SB 743 Implementation Guidelines or any other VMT reduction criteria as may be adopted by the City and in effect during project review, the City shall require feasible mitigation measures to reduce VMT impacts from any and all VMT threshold exceedance(s) identified.

Table 6-1, *No Project Alternative Buildout Summary*, shows the net change in buildout between the proposed project and No Project (Approved Project) Alternative.

TABLE 6-1 NO PROJECT ALTERNATIVE BUILDOUT SUMMARY

	No Project (Approved Project) Alternative	Proposed Project	Net Change
Dwelling Units	31,977	31,610	-367
Population	83,141	82,186	-955
Employment	30,537	30,120	-416
Nonresidential (Square Footage)	19,198	18,882	-316
Jobs-to-Housing Ratio	0.95	0.95	--

6.4.1 AIR QUALITY

The proposed project would include additional policies targeted toward the improvement and mitigation of air quality impacts. Additional new policies in the Transportation Element would also contribute to a further reduction in transportation-related emissions by prioritizing the development of low-stress walk and bikeways and encouraging mixed-use, compact development. As such, the proposed project could result in fewer emissions than the No Project Alternative. However, both would allow the same level of development intensity, which would result in significant and unavoidable impacts, as analyzed within Section 4.1, *Air Quality*. While impacts under this alternative would likely be greater than those of the proposed project, they would likely also be significant and unavoidable.

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6.4.2 ENERGY

Under the No Project (Approved Project) Alternative, there would be more dwelling units and other non-residential land uses compared to the proposed project. Therefore, the growth potential under the existing General Plan would be greater than the proposed project. The proposed project could lead to less vacant land being developed on the periphery of the city's growth boundary. Additionally, land in the General Plan Area could be used for relatively more energy-intensive land uses. The proposed project would encourage higher-density development in the city core, which is generally more energy-efficient. While the impacts of this alternative would be greater than those of the proposed project, they would remain less than significant.

6.4.3 GREENHOUSE GAS EMISSIONS

Under the No Project (Approved Project) Alternative, more growth and development would occur compared to the proposed project. In contrast, the proposed project would promote more intensive development in the city's core, leading to fewer transportation-related emissions and more energy-efficient outcomes. Additionally, the proposed project's policies related to growth management and mobility improvements would further reduce GHG emissions compared to the No Project Alternative. Therefore, while both the proposed project and the No Project Alternative would result in significant and unavoidable impacts, the impacts would be slightly greater under the No Project Alternative.

6.4.4 LAND USE AND PLANNING

Land Use

Neither the No Project (Approved Project) Alternative nor the proposed project would physically divide an established community. The proposed project aims to reconcile discrepancies in the General Plan Land Use map, particularly for urbanized areas, and ensure consistency with local plans. Under the No Project Alternative, impacts would be less than regarding conflicts with local or regional plans. Impacts would be less than significant.

Agriculture

As shown in Table 6-1, the No Project (Approved Project) Alternative would result in more developmental growth compared to the proposed project, which could convert more agricultural land. However, like the proposed project, the No Project (Approved Project) Alternative would allow for the conversion of Important Farmland to nonagricultural. This alternative could result in a greater amount of land that could be converted from agricultural uses when compared to the proposed project. Impacts on agriculture and farmland would remain significant and unavoidable.

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Historical Resources

Impacts under the No Project (Approved Project) Alternative would be greater than those of the proposed project. As shown in Table 6-1, the No Project Alternative would result in more developmental growth compared to the proposed project, which could impact historical buildings in Lodi's downtown. However, like the proposed project, the No Project (Approved Project) Alternative would allow for development in and surrounding Lodi's downtown. Both future development under this alternative and the proposed project could result in significant and unavoidable impacts on historic resources, as development within Lodi's downtown would still take place.

6.4.5 NOISE

Under this alternative, there would be more residential and nonresidential development compared to the proposed project. As a result, future development could lead to temporary or permanent increases in ambient noise levels beyond established standards. Construction noise, transportation-related noise, and stationary (industrial/commercial) noise could exceed thresholds, particularly near sensitive receptors. While noise impacts under the No Project (Approved Project) Alternative would be greater than those of the proposed project, both scenarios would still result in significant and unavoidable noise impacts from future individual projects.

6.4.6 POPULATION AND HOUSING

The No Project (Approved Project) Alternative would result in an increase in new residents and employees compared to the proposed project. However, like the proposed project, this alternative would not displace housing or people. Under both scenarios, impacts on population and housing would be less than significant. As this alternative would not achieve some of the beneficial effects of the proposed project related to housing and employment, the impact of this alternative would be greater than the proposed project but would remain less than significant.

6.4.7 PUBLIC SERVICES

The No Project (Approved Project) Alternative would result in an increase in new residents and employees compared to the proposed project. This alternative would not include new policies and actions that address public services and recreation. Impacts to public services, including fire, police, school, library, parks, and recreational services would be less than the proposed project and would remain less than significant.

6.4.8 PARKS AND RECREATION

Under this alternative, the projected population would exceed that of the proposed project, leading to a higher demand for parkland. However, both scenarios plan to meet future park needs in accordance with the City of Lodi Municipal Code Chapter 15.64, which mandates that new developments contribute their fair share to the construction costs of parks and recreational facilities. As development progresses, it is anticipated that parks will be acquired, expanded, and made publicly accessible. While the No Project

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(Approved Project) Alternative would result in greater impacts, these impacts are still expected to be less than significant, similar to those of the proposed project.

6.4.9 TRANSPORTATION

Under the No Project Alternative, development in Lodi would proceed according to the existing land use plan. In contrast, the proposed project introduces new policies that prioritize alternative transportation modes and establish VMT thresholds to assess future project impacts. Although future VMT under the No Project (Approved Project) Alternative has not been specifically evaluated, it can be reasonably assumed that the new policies in the proposed General Plan Update would result in lower future VMT per resident compared to the No Project (Approved Project) Alternative. While the impacts under this alternative would be slightly greater than those of the proposed project, they would still be considered significant and unavoidable due to cumulative impacts.

6.4.10 UTILITIES AND SERVICES SYSTEMS

This alternative would result in more people compared to the proposed project, which would increase the amount of water and wastewater demand resulting in the need to upgrade or replace existing distribution and collection infrastructure, such as water and wastewater lines. The demand for service will remain like that of the proposed project; however, additional construction or improvement to the existing systems may be needed to accommodate new and different types of development in some neighborhoods. Overall, the existing infrastructure is adequate to accommodate new growth and impacts would be less than significant, similar to those of the proposed project.

6.4.11 CONCLUSION

All impacts would be greater under the No Project (Approved Project) Alternative compared to the proposed project. Significant and unavoidable impacts would still occur to agricultural land, air quality, GHG emissions, historical resources, noise, and VMT. The No Project (Approved Project) Alternative would not meet two of the project objectives: establish consistency between developed lands and general plan designations and enhance land use designations.

6.5 NO ANNEXATION ALTERNATIVE

This alternative would minimize the impacts on agriculture associated with annexation and development. As shown in Table 4.4-1, *Farmland in Lodi*, of Section 4.4, *Land Use and Planning*, there is a total of 1,436 acres of important farmland within the city limits of Lodi, while the city limits and SOI combined include 3,049 acres of Important Farmland. This alternative evaluates development solely within city limits as part of the proposed project. This alternative would limit the expansion of services, limit the conversion of agricultural land, and reduce VMT. Additionally, this alternative would still include proposed revisions to the existing General Plan Elements and the introduction of new policies. Since no annexation would take place, this alternative would enhance the development potential and land value of infill properties already in the city, thereby increasing pressure to build at higher densities in the city limits.

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6.5.1 AIR QUALITY

The No Annexation Alternative reduces VMT compared to the proposed project as development would be focused in city limits, which would lead to a more compact urban form (larger/taller buildings, smaller parcels) assuming that demand for development remains like that of the proposed project. A reduction in VMT would result in better air quality as fewer personal vehicle trips would result in less emissions. However, like the proposed project, it is not possible to determine the full extent of the reduction in VMT or resulting reduction in emissions; therefore, air quality impacts under this alternative, while less than those identified for the proposed General Plan Update, would remain significant and unavoidable.

6.5.2 ENERGY

While the No Annexation Alternative would build on less land, the size and density of the buildings would increase, resulting in approximately the same amount of development in a more compact urban form. This alternative would have operational efficiencies when compared to the proposed project, as fewer and larger buildings would have efficiencies that may not be possible in more numerous smaller buildings. All future development in city limits, including buildings in this alternative, must comply with new Cal Green standards as well as policies in the proposed project; therefore, impacts under this alternative, as with the proposed project, would be less than significant.

6.5.3 GREENHOUSE GAS EMISSIONS

Under the No Annexation Alternative, there would be a reduction in developed land occurring compared to the proposed project. The reduction of the land development under this alternative could result in more intensive development in the city's core, resulting in fewer transportation-related emissions and more energy-efficient development. The proposed project's associated goals and policies would also help to reduce GHG emissions. Therefore, while impacts would be significant and unavoidable under both the proposed project and the No Annexation Alternative, impacts would be slightly less than the proposed project under this alternative.

6.5.4 LAND USE AND PLANNING

Land Use

Neither the No Annexation Alternative nor the proposed project would physically divide an established community. The proposed project aims to reconcile discrepancies in the General Plan Land Use map, particularly for urbanized areas, and ensure consistency with local plans. Under the No Annexation Alternative, impacts would be less than significant regarding conflicts with local or regional plans.

Agriculture

As shown in Table 4.4-1, *Farmland in Lodi*, in Section 4.4, *Land Use and Planning*, of the SEIR, there are approximately 251 acres of Important Farmland in Lodi, while the SOI includes an additional 2,273 acres. The No Annexation Alternative would reduce the conversion of important farmland from agricultural to

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nonagricultural uses. However, similar to the proposed project, this alternative would still result in some conversion of important farmland. Overall, the No Annexation Alternative would lead to less farmland being converted compared to the proposed project. Despite this, impacts on agriculture would remain significant and unavoidable, similar to the proposed project.

Historical Resources

Impacts under the No Annexation Alternative would likely be greater than those of the proposed project. This alternative would limit the city's geographic growth by prohibiting annexation of new lands, which could result in higher-density development in Lodi's existing boundaries. As a result, more intensive urbanization could occur, particularly in or near Lodi's downtown area, which includes several historically significant buildings. The increased density could lead to the obstruction, destruction, or alteration of these historical resources as new development occurs in proximity to areas of cultural and architectural value. Although both the Increased Density Alternative and the proposed project would result in significant and unavoidable impacts on historic resources, the No Annexation Alternative could exacerbate these impacts.

6.5.5 NOISE

Under the No Annexation Alternative, future developments would be more concentrated in the city's footprint, potentially increasing construction noise levels due to the closer proximity of development. As a result, future development could lead to temporary or permanent increases in ambient noise levels beyond established standards. However, this alternative would also result in a reduction of VMT by the City's planning horizon, as development would be more constrained, reducing travel distances between land uses. Shorter travel distances typically lead to less vehicle noise, so traffic-related noise impacts under this alternative would be slightly lower than those identified for the proposed project. Despite this reduction in traffic noise, other noise sources, such as construction noise and stationary (industrial/commercial) noise, could still exceed noise thresholds, particularly near sensitive receptors. While the overall noise impacts under the No Annexation Alternative would be somewhat less than those of the proposed project, both scenarios would still result in significant and unavoidable noise impacts from future individual projects.

6.5.6 POPULATION AND HOUSING

Theoretically, development could remain the same; however, in reality, it would likely be reduced, possibly even substantially. Infill development is more challenging and costly, which could slow the pace of development. As a result, the City might struggle to meet its RHNA housing obligations. Housing prices could rise, exacerbating affordability issues. Under this alternative, population growth would remain unchanged, but the available land for housing would be concentrated within the city limits. While this could lead to pressure to redevelop existing neighborhoods, potentially displacing residents and eliminating housing to accommodate projected growth, State law mandates replacement housing during the development review process. The potential population and housing impacts under this alternative would be similar to those identified for the proposed project and would be considered less than significant.

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6.5.7 PUBLIC SERVICES

Under the No Annexation Alternative, the reduced availability of developable land would result in a more compact urban form. While it may be more difficult to site new or expand existing facilities, the smaller city footprint would reduce patrol distances and improve response time for public safety personnel. There would still be a need to expand public services for the increased population, like the proposed project. This alternative would still align with the goals and policies of the proposed project, ensuring that overall impacts on public services remain less than significant.

6.5.8 RECREATION

The No Annexation Alternative exerts pressure on existing recreation resources to serve the growing population. As a result, the impacts on recreation resources would be greater compared to those anticipated under the proposed project. Despite this increased pressure, the alternative would maintain alignment with the proposed project's goals and policies, ensuring that overall impacts on recreational resources remain less than significant.

6.5.9 TRANSPORTATION

This alternative would promote infill projects and higher-density development in the city, leading to greater reductions in VMT compared to the proposed project. With land uses situated closer together and connected by improvements such as sidewalks and trails, this alternative could encourage more pedestrians, bicyclists, and transit riders. Although this alternative may also exhibit lower VMT, a comprehensive VMT assessment is necessary due to land use compatibility and projected growth, resulting in significant and unavoidable impacts. While both the proposed project and the No Annexation Alternative would have significant and unavoidable impacts, the impacts under this alternative would be slightly less than those of the proposed project.

6.5.10 UTILITIES AND SERVICE SYSTEMS

This alternative would promote additional infill development, which could place additional demand on existing water and wastewater systems. While the overall demand for services would be similar to that of the proposed project, some neighborhoods may require upgrades or expansions to accommodate new types of development. However, the existing infrastructure is generally sufficient to support new growth. The potential impacts would be greater than those associated with the proposed project but are still considered less than significant.

6.5.11 CONCLUSION

Under this alternative, eliminating annexable land and focusing development only in the city limits would increase impacts related to historical resources, public services, and recreation compared to the proposed project. The reduction of annexable land would reduce agriculture conversion, air quality, energy, noise, and vehicle trip generation and associated vehicle and GHG emissions. This alternative would include adopting the goals, policies, and implementation actions of the proposed project and would generally meet the

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objectives of the proposed project. Although impacts on agriculture, air quality, GHG emissions, noise, and VMT would be less than those of the proposed project, they would still be significant and unavoidable, as expected with the proposed project. The No Annexation Alternative would meet the project objectives.

6.6 INCREASED DENSITY ALTERNATIVE

In the Increased Density Alternative, the City would establish policies and amend development standards to require higher development densities as compared to the proposed project. One intent of this alternative is to encourage an efficient use of existing land, thereby reducing the need to annex large areas of land. Under this alternative, the need for annexation would be reduced by requiring more development on the same amount of land (e.g., higher-density, larger/taller buildings).

6.6.1 AIR QUALITY

This alternative assumes the same amount of development as the proposed project; however, on less land and with more efficient development. As this alternative promotes mixed-use developments and the resultant greater pedestrian and transit uses entailed would reduce vehicle trips and associated emissions. Therefore, air quality impacts would be reduced compared to the proposed project. While impacts under this alternative would be less than those of the proposed project, they would likely also be significant and unavoidable.

6.6.2 ENERGY

This alternative would likely result in larger buildings to accommodate the same population growth. In general, an apartment or mixed-used building uses less energy than a comparable number of single-family homes. Energy use would likely be slightly less than the proposed project and would remain less than significant.

6.6.3 GREENHOUSE GAS EMISSIONS

As noted in Section 6.6.1, *Air Quality*, increased density of development under this alternative could allow for alternative modes of travel in the city, which could result in fewer GHG emissions per unit. However, although the City is considering developing and implementing a Climate Action Plan, it is uncertain whether these policies will lower the city's GHG emissions to a less-than-significant level. Therefore, GHG emissions associated with the proposed project and this alternative would remain significant and unavoidable.

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6.6.4 LAND USE AND PLANNING

Land Use

Neither the Increased Density Alternative nor the proposed project would physically divide an established community. The proposed project aims to reconcile discrepancies in the General Plan Land Use map, particularly for urbanized areas, and ensure consistency with local plans. Under the Increased Density Alternative, impacts would be like those of the proposed project and would be less than significant.

Agriculture

The Increased Density Alternative would help reduce the conversion of important farmland to nonagricultural uses by minimizing the need for annexation, thus preserving prime agricultural land from urban development. However, like the proposed project, this alternative would still result in some conversion of important farmland. Overall, the Increased Density Alternative would result in less farmland being converted compared to the proposed project. Despite this reduction, impacts on agriculture would remain significant and unavoidable, same as the proposed project.

Historical Resources

Impacts under the Increased Density Alternative would likely be greater than those of the proposed project due to the higher concentration of development in urban areas, particularly in Lodi's downtown. By increasing the density of land uses, this alternative could place greater pressure on historical buildings, potentially obstructing, damaging, or even destroying these resources. Higher-density development often involves larger-scale structures or infrastructure that could encroach on or disrupt the integrity of historic buildings, streetscapes, and districts, which are particularly concentrated in the downtown area of Lodi. While both the Increased Density Alternative and the proposed project would result in significant and unavoidable impacts on historic resources, the Increased Density Alternative would likely exacerbate these effects due to the denser concentration of development in Lodi's historic core. Impacts would remain significant and unavoidable.

6.6.5 NOISE

Under the Increased Density Alternative, development would be more focused in the existing urban footprint, this alternative could also lead to a reduction in VMT by the City's planning horizon. Shorter travel distances between land uses typically result in lower vehicle noise, meaning traffic-related noise impacts under this alternative would likely be slightly lower compared to the proposed project. Despite the reduction in traffic-related noise, other sources of noise—such as construction noise and stationary (industrial/commercial) noise—could still exceed acceptable noise thresholds, particularly near sensitive receptors. While overall noise impacts under the Increased Density Alternative may be somewhat less than those identified for the proposed project, both scenarios would still result in significant and unavoidable noise impacts from future individual projects.

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6.6.6 POPULATION AND HOUSING

This alternative would increase development intensity but would not change the amount of growth projected for the proposed project. The alternative would result in a more efficient use of land that could reduce the cost of some housing types. However, as this alternative would not increase the amount of population or employment growth when compared to the proposed project, impacts would be less than significant.

6.6.7 PUBLIC SERVICES

Increased building sizes and densities in certain areas of the city may require upgrades to infrastructure to meet the rising demand for water and wastewater services. More intensive development would generally reduce response times for services and increase the use of existing public facilities. While the overall impact on public services would be similar to that of the proposed project, in some neighborhoods, a substantial increase in population could create heightened demand for services. However, as this alternative would implement the policies of the proposed project to address future service needs, the impact on public services would be less than significant and similar to that of the proposed project.

6.6.8 RECREATION

Higher-density development in certain areas of the city could lead to increased demand for parks and recreational facilities. While this alternative would provide policies to address future service needs (including parks), the increase in population in some neighborhoods may outpace the available land for new or expanded recreational facilities. As a result, the demand for parks could exceed current capacity in some areas, leading to a potential shortfall. However, since the alternative would follow the same policies as the proposed project, impacts on recreation would be less than significant, similar to the proposed project.

6.6.9 TRANSPORTATION

Because the increase in building size would place more residents and customers closer to services, this alternative could reduce VMT when compared to the proposed project. The increased density would likely be directed primarily to the more developed area of the city, which could encourage mobility rather than driving and support the goal of reduced VMT. While the impacts under this alternative would be slightly less than those of the proposed project, they would still be considered significant and unavoidable.

6.6.10 UTILITIES AND SERVICE SYSTEMS

Larger buildings and changes in land use could increase demand for utilities in certain areas of the city, potentially necessitating upgrades or replacement of older or smaller water and sewer infrastructure. While the proposed project would similarly raise demand in some areas, this alternative may lead to a slightly higher utility demand. However, the impact on services would still be considered less than significant.

ALTERNATIVES TO THE PROPOSED PROJECT

6.6.11 CONCLUSION

Under this alternative, increasing the development capacity throughout the city and SOI would increase impacts related to historical resources, noise, public services, utilities, and recreation compared to the proposed project. Reducing the necessary acreages to accommodate projected population growth and increase land use efficiency would reduce agriculture conversion, air quality, energy, land use, population and housing, vehicle trip generation, and associated vehicle and GHG emissions.

The Increased Density Alternative would result in greater environmental impacts than the proposed project on some environmental issues or less impact on other issues. Since this alternative would include adopting the goals, policies, and implementation actions of the proposed project and would comply with the same standards as the proposed project, it would generally meet the objectives of the proposed project. Although impacts on agriculture resources, air quality, GHG emissions, noise, and VMT would be less than those of the proposed project, they would remain significant and unavoidable, like those of the proposed project. The Increased Density Alternative would meet the project objectives.

6.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 6-2, *Alternatives Impact Comparison*, summarizes the environmental impacts of each of the alternatives when compared to the proposed project. The table lists the level of significance of the impacts of the proposed project on each environmental topic of the Draft SEIR and shows whether the impacts anticipated under each proposed alternative would be less, similar, or greater than the proposed project. It should be noted that all impacts identified as being significant and unavoidable (i.e., agriculture, air quality, GHG emissions, historical resources, noise, and transportation) would remain significant and unavoidable under each alternative despite whether the alternative would reduce the intensity of the impact.

ALTERNATIVES TO THE PROPOSED PROJECT

TABLE 6-2 ALTERNATIVES IMPACT COMPARISON

Environmental Topics	Proposed Project	Alternatives		
		No Project	No Annexation	Increased Density
Air Quality	SU ²	+	-	-
Energy	LTS	+	-	-
Greenhouse Gas Emissions	SU ³	+	-	-
Land Use and Planning ⁷	LTS	+	+	=
Agriculture ⁷	SU ¹	+	-	-
Historical Resources ⁷	SU ⁴	+	+	=
Noise	SU ⁵	+	-	-
Population and Housing	LTS	+	=	=
Public Services	LTS	+	=	+
Parks and Recreation	LTS	+	+	+
Transportation	SU ⁶	+	-	-
Utilities and Service Systems	LTS	+	+	+
Summary		+	-	-

Notes:

¹ Impacts related to prime agriculture

² Impacts related to increase of a criteria pollutant and would expose sensitive receptors to substantial pollutant concentrations

³ Impacts related to conflict with or obstruct a State or local plan for renewable energy or energy efficiency

⁴ Impacts related to historical buildings

⁵ Impacts related to ambient noise levels

⁶ Impacts related to vehicle miles traveled

⁷ Impacts are combined and discussed in Section 4.4, *Land Use and Planning*, in the SEIR.

(+) Impacts greater than the proposed project

(=) Impact similar to the proposed project

(-) Impacts less than the proposed project

In addition to comparing alternatives to the impacts of the proposed project, CEQA also requires that alternatives be evaluated against the primary project objectives. Table 6-3, *Primary Objectives Alternative Comparison*, notes whether the alternatives meet the primary project objectives. The increased density alternatives meet all of the project objectives while still accommodating the projected growth for the city.

TABLE 6-3 PRIMARY OBJECTIVES ALTERNATIVE COMPARISON

Primary Objective	No Project	No Annexation	Increased Density
Establish consistency between developed lands and general plan designations.	Does not meet	Meets	Meets
Enhance Land Use Designation.	Does not meet	Meets	Meets
Designate land to allow for affordable housing projects.	Meets	Meets	Meets
Facilitate development in Downtown Lodi.	Meets	Meets	Meets
Amend the Transportation Section and establish Vehicle Miles Traveled (VMT) thresholds as outlined in the City's VMT guidelines.	Does not meet	Meets	Meets

In addition to the discussion and comparison of the impacts of a project and alternatives, Section 15126.6 of the CEQA Guidelines requires that an “environmentally superior” alternative be selected and the reasons for such a selection disclosed. In general, the environmentally superior alternative is the alternative that would be expected to generate the least significant impacts, or which would reduce environmental impacts associated with a proposed project. The No Project (Approved Project) Alternative under consideration cannot be identified as the Environmentally Superior Alternative.

ALTERNATIVES TO THE PROPOSED PROJECT

The Increased Density Alternative has the least environmental impact, as it is superior to the proposed project in terms of agricultural resources, air quality, energy use, GHG emissions, land use, historical resources, noise, and VMT. Additionally, it meets the primary objectives of the proposed project.

ALTERNATIVES TO THE PROPOSED PROJECT

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7. CEQA-Mandated Sections

As stated in the California Code of Regulations (CCR) Title 14 Section 15126, Consideration and Discussion of Environmental Impacts, all phases of a project must be considered when evaluating its impact on the environment: planning, acquisition, development, and operation. The subjects listed below must be discussed as directed in CCR Sections 15126.2, Consideration and Discussion of Significant Environmental Impacts; 15126.4, Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects; and 15126.6, Consideration and Discussion of Alternatives to the Proposed Project. This Draft Subsequent Environmental Impact Report (SEIR) must address all of the following subjects listed in 14 CCR Section 15126:

- (a) **Significant Environmental Effects of the Proposed Project.** An EIR is a crucial document that outlines the significant environmental impacts of a proposed project. The lead agency should focus on changes in existing physical conditions in the affected area at the time of preparation or when the environmental analysis begins. The EIR should identify and describe the project's direct and indirect effects, considering both short-term and long-term effects. It should include specifics of the area, resources involved, physical changes, ecological systems, population distribution, human use, health and safety problems, and other aspects of the resource base. The EIR should also analyze any potential environmental effects the project might cause or risk exacerbating by bringing development and people into the affected area (CCR, Title 14, Section 15126.2(a)). These items are covered in Chapter 4, *Environmental Analysis*, of this Draft SEIR, which examines the environmental setting of the proposed project, analyzes its effects and the significance of its impacts, and recommends mitigation measures to reduce or avoid impacts.
- (b) **Significant Environmental Effects Which Cannot Be Avoided if the Proposed Project Is Implemented.** The EIR should describe any significant impacts, including those that can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described (14 CCR Section 15126.2(c)). These effects are discussed in Chapter 5, *Significant Unavoidable and Adverse Impacts*.
- (c) **Significant Irreversible Environmental Changes Which Would Be Involved in the Proposed Project Should It Be Implemented.** Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified (14 CCR Section 15126.2(d)). These changes are discussed in Section 7.2, *Significant Irreversible Changes*.
- (d) **Growth-Inducing Impact of the Proposed Project.** The EIR should discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects

CEQA-MANDATED SECTIONS

that would remove obstacles to population growth (e.g., a major expansion of a wastewater treatment plant might allow for more construction in service areas). It also includes projects that would increase the population such that they would tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. The EIR should also discuss the characteristics of some projects that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment (14 CCR Section 15126.2(e)). These impacts are discussed in Section 7.3, *Growth-Inducing Impacts*.

- (e) **Mitigation Measures Proposed to Minimize the Significant Effects.** The full requirements for mitigation measures under CEQA are listed in 14 CCR Section 15126.4. Refer to Chapter 1, *Executive Summary*, for a summary table of mitigation measures and Sections 4.1 through 4.10 for further detail regarding mitigation measures considered in this SEIR.
- (f) **Alternatives to the Proposed Project.** The full requirements for Alternatives to the Proposed Project under CEQA are listed in CCR Section 15126.6. Refer to Chapter 6, *Alternatives to the Proposed Project*, for a discussion of project alternatives.

This chapter of the Draft SEIR describes the significant unavoidable environmental impacts, significant irreversible environmental changes, and growth-inducing impacts of the proposed project. The following discussion addresses these issues as they relate to the implementation of the proposed project.

7.1 IMPACTS FOUND NOT TO BE SIGNIFICANT

CEQA Guidelines Section 15128, Effects Not Found to be Significant, allows environmental issues for which there is no likelihood of significant impact to be “scoped out” and not analyzed further in the EIR. This section explains why it was determined that the proposed project would have no impact. These are discussed in Chapter 5, *Significant Unavoidable Adverse Impacts*

7.2 SIGNIFICANT IRREVERSIBLE CHANGES

Section 15126.2(c) of the CEQA Guidelines requires an EIR to discuss the extent to which the proposed project would commit nonrenewable resources to uses that future generations would probably be unable to reverse. The three CEQA-required categories of irreversible changes are discussed here.

7.2.1 CHANGES IN LAND USE THAT COMMIT FUTURE GENERATIONS

As described in detail in Chapter 3, *Project Description*, of this Draft SEIR, the proposed project is updating its land use map to align with current land uses, focusing on mixed-use development and higher-density housing in community cores where infrastructure and services are readily available. Once future development under the proposed project occurs, it would not be feasible or desirable to return the developed land to its existing (pre-project) condition. Therefore, there is potential that some of the development allowed under the proposed project would most likely lead to irreversible changes in land use.

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7.2.2 IRREVERSIBLE DAMAGE FROM ENVIRONMENTAL ACCIDENTS

Irreversible changes to the physical environment could occur from accidental release of hazardous materials associated with development activities allowed by the proposed project; however, compliance with applicable federal, State, and local regulations and the proposed project goals, policies, and actions would reduce this potential impact to a less-than-significant level. Irreversible damage therefore is not expected to result from the adoption and implementation of the proposed project.

7.2.3 LARGE COMMITMENT OF NONRENEWABLE RESOURCES

The proposed project would promote mixed-use development near transportation facilities and employment centers and implement energy and water conservation requirements related to existing and new development, thereby minimizing consumption of nonrenewable resources to the extent practicable. However, development allowed by the proposed project would irretrievably commit nonrenewable resources for the construction of buildings, infrastructure, and roadway improvements. Future development under the proposed project also represents a long-term commitment to the consumption of fossil fuels such as natural gas and gasoline. Increased energy demands would be used for the construction, lighting, heating, and cooling of residences and transportation of people within, to, and from the Planning Area. However, as shown in Section 4.2, *Energy*, and Section 4.10, *Utilities and Service Systems*, of this Draft SEIR, several regulatory measures and proposed project goals, policies, and actions encourage energy and water conservation, alternative energy use, waste reduction, alternatives to automotive transportation, and green building.

Future development under the proposed project would be required to comply with all applicable building and design requirements, including those outlined in Title 24 relating to energy conservation. In compliance with CALGreen, the State's Green Building Standards Code, future development would be required to reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, and use low-pollutant-emitting materials. Therefore, while construction and operation of future development would involve the use of nonrenewable resources, compliance with applicable standards and regulations and implementation of proposed General Plan Update goals, policies, and actions would minimize impacts.

7.3 GROWTH-INDUCING IMPACTS

Section 15126.2(e) of the CEQA Guidelines requires that an EIR discuss the ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Typical growth-inducing factors might be the extension of urban services or transportation infrastructure to a previously unserved or under-served area, or the removal of major barriers to development.

This section evaluates the proposed project's potential to create such growth inducements. As CEQA Guidelines Section 15126.2(e) requires, "[it] must not be assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment." In other words, growth inducement in

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and of itself does not indicate a significant impact; rather, the evaluation should consider whether the growth inducement would cause significant adverse environmental impacts.

Growth-inducing impacts fall into two general categories: direct or indirect. Direct growth-inducing impacts would occur if the project results in increased population due to the development of housing that adds new residents, or commercial/industrial uses that would add new employees. Indirect or secondary growth-inducing impacts would occur if a project removes barriers to growth, such as by adding infrastructure and public services in areas that currently lack these services.

7.3.1 DIRECT IMPACTS

The proposed project is a plan-level document that does not propose any specific development; however, implementation of the proposed project would induce growth by increasing the development potential in the Planning Area, as shown in Table 3-2, *2045 General Plan Planning Horizon Forecast*, in Chapter 3, *Project Description*. As shown in Table 3-2, the 2045 forecast for the General Plan Area is approximately 82,186 total residents and 31,610 total housing units.

State law requires jurisdictions to promote the production of housing to meet their fair share of regional housing needs as determined by the San Joaquin Council of Governments. By definition, the proposed General Plan would provide a framework for development in the Planning Area, thereby facilitating planned growth, as discussed in Section 4.6, *Population and Housing*. The environmental impacts of this anticipated growth under the proposed project are discussed in Sections 4.1 through 4.10. In addition, the proposed project would result in regional benefits by promoting growth that encourages less automobile dependence, which could have associated air quality and greenhouse gas benefits.

7.3.2 INDIRECT IMPACTS

The proposed project could be considered growth inducing because it includes policies and actions that encourage new growth in the Planning Area. Such development would occur within the City limits where infrastructure is already in place. Meanwhile, growth would be required to comply with the City's General Plan, zoning regulations, and standards for public services and utilities. Secondary effects associated with this growth do not represent a significant new environmental impact that has not already been addressed in the individual resource sections of this SEIR. Additionally, population and employment growth would occur incrementally over approximately 25 years and would be consistent with the regional planning objectives established for the San Joaquin region.

8. *Impacts Found Not to Be Significant*

California Public Resources Code Section 21003 (f) states: "...it is the policy of the state that...[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." This policy is reflected in the State California Environmental Quality Act (CEQA) Guidelines (Guidelines) Section 15126.2(a), which states that "[a]n EIR [Environmental Impact Report] shall identify and focus on the significant environmental impacts of the proposed project" and Section 15143, which states that "[t]he EIR shall focus on the significant effects on the environment."

State CEQA Guidelines Section 15128 requires that an EIR contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant. This chapter includes an environmental analysis and findings of no impact, less than significant, or less than significant with mitigation incorporated for the topics not included in Chapter 4, *Environmental Analysis*, of this DEIR.

AESTHETICS

Would the project:

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

Less Than Significant Impact. The 2009 Certified EIR indicated that the relatively flat topography results in few scenic vistas in the City. Views consist mainly of adjacent farmland; cul-de-sacs and intersections restrict views of the Mokelumne River and the Lodi Lake Wilderness Area. Distant views of Mount Diablo to the southwest and Sierra Nevada foothills to the east exist. However, given the distance, topography, and development, views of Mount Diablo and the Sierra Nevada foothills are partially obstructed.

The proposed project would increase the amount of land designated for Low-Density Residential, High-Density Residential, Downtown Mixed Use, Mixed Use Center, and Open Space, and decrease the amount of land designated for Medium Residential, Mixed Use Corridor, Commercial, Office, Industrial, Public/Quasi-Public, and Urban Reserve. The General Plan Update includes policies such as P-G2, which would protect natural resource areas, native vegetation, scenic areas, open space areas, and parks from encroachment or destruction. Implementation of policy P-G2 would ensure that development of buildings did not occur on open space in such a fashion as to substantially block scenic views. Note that trees may be planted in open space and could obscure distant views. The City does not consider trees an impediment to scenic views.

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

As with the 2009 Certified EIR, the proposed project would not result in substantial impacts on public views. While the increase in development may limit existing views, the increase in Open Space areas would provide additional opportunities for scenic views. Therefore, as with the 2009 Certified EIR, the proposed project would result in less than significant impacts.

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

No Impact. According to the California Scenic Highway Mapping System, there are no state-designated scenic highways in Lodi (Caltrans 2019). The closest designated scenic highway is State Route 160 (SR 160) in Sacramento County, approximately 11 miles northwest of the City. Therefore, future development pursuant to the proposed project would not degrade scenic resources within SR 160, given the intervening distance, varying topography, and development. No impacts would occur.

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 a 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 2009 Certified EIR states that development under the 2009 General Plan had the potential to result in beneficial changes to Lodi's visual character by maintaining and enhancing the urban areas.

The proposed project aims to reconcile discrepancies between the General Plan Land Use Map and sites that are already developed, and designate additional sites for housing units. The proposed land use changes would generally be consistent with the existing development pattern. Primary changes to the visual character of the City would be the addition of new buildings, streets, and other urban development, most likely in the downtown area. Future development under the proposed project would be required to comply with the General Plan Update policies and the City's zoning and development codes to ensure scenic quality and visual character are not degraded. The City will review future project plans to ensure consistency with objective design standards, specific plans, and applicable regulations and codes to ensure that future development would neither conflict with applicable zoning governing scenic quality nor degrade the existing visual character. While development in the form of buildings, parking lots, landscaping, lighting, and other urban amenities would increase under the proposed project, land designated as Open Space would also increase, thereby maintaining the City and surrounding areas' visual character. As with the 2009 Certified EIR, impacts would be 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. The 2009 Certified EIR stated that development would include interior and exterior lighting that could be visible from a distance at night.

Future development in accordance with the General Plan Update would allow for the development of currently undeveloped parcels, and alteration, intensification, and redistribution of existing land uses. As such, future development has the potential to introduce new sources of light and glare that could

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

adversely affect day or nighttime views in the area. Section 17.14.070, Lighting, of the Lodi Municipal Code includes provisions for exterior lighting on private property, such as shielding light fixtures, which would reduce light and glare impacts. Additionally, the General Plan Update includes Policy CD-P32, which states that lighting from new development shall be designed to prevent artificial lighting from illuminating adjacent residential neighborhoods and natural areas at a level greater than one foot-candle above ambient conditions. This policy would ensure that the impacts of light and glare from future development would be kept within the boundaries of new development. As with the 2009 Certified EIR, impacts under the proposed project would be less than significant.

AGRICULTURE AND FORESTRY RESOURCES

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?

See Impact LU-3 in Section 4.4, *Land Use and Planning*, in the SEIR.

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

Less Than Significant Impact. The 2009 Certified EIR assumed that future development would occur on lands subject to a Williamson Act contract. The 2009 Certified EIR stated that proper procedures (including minimizing early termination of active contracts) would be followed as development occurs.

Land in the City is not within a Williamson Act contract because the City does not administer a Williamson Act program. Additionally, there are no lands in the City that are zoned for agricultural use. Land in the northwestern and western portions of the SOI includes parcels that are under a Williamson Act contract administered by San Joaquin County (CDC 2023). Therefore, future development under the proposed project would not impact a Williamson Act contract or conflict with existing zoning for agricultural use. As with the 2009 Certified EIR, impacts would be less than significant.

- 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))?

No Impact. According to the California Department of Fish and Wildlife, there are no forestlands or timberlands within San Joaquin County (CDFW 2015). Additionally, the City is urbanized. Therefore, future development under the proposed project would not conflict with zoning for forestlands or timberlands; no impacts would occur.

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

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

No Impact. The City is urbanized, and as such, there are no forestlands within the City; future development under the proposed project would not convert forestland to non-forest land. Therefore, no impacts would occur.

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?

See Impact LU-4 in Section 4.4, *Land Use and Planning*, in the SEIR.

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 plan, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant Impact. The 2009 Certified EIR indicated that while future development may impact potential habitats and sensitive species, compliance with federal and state laws and General Plan policies would reduce potential impacts.

Land within the City Limits is urbanized with buildings, roads, parking lots, artificial lighting, and sidewalks. While wildlife may adapt and live in the development, the City contains a few areas that provide habitats for sensitive species or habitats. The Lodi Lake Wilderness Area, including the Mokelumne River, at the northern boundary of the City as well as open space areas and trees throughout the City may contain special status species such as nesting birds. As with the 2009 Certified EIR, future development in the City would be required to comply with local, state, and federal regulations about the protection of special status, candidate, and/or sensitive species if they occur on or near a development site.

In addition, Lodi and its SOI are covered by the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The SJMSCP seeks to balance the conservation of Open Space with the need for development while protecting the agricultural economy and landowner rights. The SJMSCP emphasizes the long-term management of endangered species, maintains multi-use Open Space for residents' quality of life, and accommodates population growth while minimizing costs for developers and the community (SJCOG 2024a). The SJMSCP includes Compensation Zone Maps to determine development fees and compensation. These maps assist planners in estimating potential fees for project proponents and assist the Joint Powers Authority in monitoring the general amounts and types of habitats being converted under the SJMSCP (SJCOG 2000). As shown in the City of Lodi's Compensation Map, most of the City limits are exempt from payment while the SOI includes payments in categories such as Natural Lands, Agricultural Habitat Lands, and Multi-purpose Open Space Land (SJCOG 2024b). Future project proponents would need to pay development fees in areas identified in Lodi that require compensation.

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

Additionally, implementation of policies from the General Plan Update would further reduce impacts—such as Policy C-P16, which would support the protection, preservation, restoration, and enhancement of habitats of State or federally listed rare, threatened, endangered and/or other sensitive and special status species, and favor enhancement of contiguous areas over small segmented remainder parcels. Policy CP-17 would continue to coordinate with the San Joaquin Council of Governments and comply with the terms of the Multi Species Habitat Conservation and Open Space Plan to protect critical habitat areas that support endangered species and other special status species. As with the 2009 Certified EIR, the impacts of the proposed project would be less than significant.

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 Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant Impact. The 2009 Certified EIR indicated that areas along the local waterways, particularly the Mokelumne River, contain riparian habitat.

According to the National Wetlands Inventory, there are no riparian habitats within the City or SOI (USFWS 2023). While the 2009 Certified EIR identified that riparian habitat exists along the Mokelumne River, under existing conditions, land adjacent to the Mokelumne River is predominantly built out with residential uses. While future development under the proposed project may include development or redevelopment adjacent to the Mokelumne River, compliance with local, state, and federal regulations would ensure impacts are reduced. Additionally, implementation of the General Plan Update includes Policy C-P19, which would protect the Mokelumne River's ecosystem, including its channel, pond, marsh, riparian vegetation, and wildlife habitats. It prohibits any activities that could disturb bottom sediments with zinc deposits, as this may lead to fish kills. Additionally, activities that could disrupt anadromous fish during their migration and spawning periods are also prohibited. Policy C-P20, which would support the protection, restoration, expansion, and management of wetland and riparian plant communities along the Mokelumne River for passive recreation, groundwater recharge, and wildlife habitat. Therefore, as with the 2009 Certified EIR, impacts under the proposed project would be less than significant.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact. The 2009 Certified EIR indicated that wetlands occur in small patches adjacent to annual grasslands and along the Mokelumne River and other waterways.

According to the National Wetlands Inventory, wetlands can be found predominantly along the Mokelumne River (USFWS 2023). Under existing conditions, land adjacent to the Mokelumne River is predominantly built out for residential uses. While future development under the proposed project may include development or redevelopment adjacent to the Mokelumne River as well as other portions of the City and SOI that include wetlands, compliance with local, state, and federal regulations would ensure impacts are reduced. Additionally, the General Plan Update includes Policy C-P20, which would Support the protection, restoration, expansion, and management of wetland and riparian plant communities along the Mokelumne River for passive recreation, groundwater recharge, and wildlife habitat. The proposed

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

project does not approve individual development projects, and any subsequent projects will be subject to review under the California Environmental Quality Act (CEQA), as deemed appropriate, along with compliance with applicable regional, state, and federal regulations concerning resources that may exist on future development sites. Therefore, as with the 2009 Certified EIR, impacts under the proposed project would be less than significant.

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 Impact. The 2009 Certified EIR indicated that portions of the City and SOI are used for migratory corridors.

Prior to development, open space and agricultural areas in and adjacent to the city could be used for migration. Migratory birds would be protected under the Migratory Bird Treaty Act, which governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. It prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations. In addition, California law, particularly relevant statutes in the Fish and Game Code, provides protections for birds and their active nests. Future development would also be required to comply with local, state, and federal regulations adopted to minimize impacts to potentially sensitive species.

The SJMSCP ensures compliance with state and federal laws regarding the protection of plants, fish, and wildlife, including the California Endangered Species Act and the Federal Endangered Species Act. The SJMSCP establishes adequate measures for avoiding impacts on covered species and their habitats. The SJMSCP provide compensation for wildlife impacts and help fulfill obligations under various environmental regulations. The SJMSCP permits incidental take of certain species, as allowed by relevant laws while minimizing impacts on recreational and agricultural lands. The SJMSCP outlines a framework for acquiring permits that authorize incidental take for both state and federally-protected species while ensuring compliance with regulations regarding habitat conservation. This plan also allows for future regional general permits from federal authorities to streamline conservation efforts (SJCOG 2000).

The City of Lodi includes Chapter 15.68, San Joaquin County Multi-Species Habitat Conservation And Open Space Plan (SJMSCP) Development Fees, which reduce impacts of new development on undeveloped lands in Lodi and San Joaquin County. Additionally, policies in the General Plan Update would reduce impacts on migratory species, such as Policy C-P19, which prohibits activities that disturb bottom sediments containing zinc deposits in the Mokelumne River, as such disturbances could lead to fish kills. The policy also prohibits activities that could disrupt anadromous fish during their migration and spawning periods in the Mokelumne River. . As with the 2009 Certified EIR, impacts 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. The City of Lodi Municipal Code Section 12.04.360, Trees, indicates that an application for removal of trees in the public right-of-way will only be approved when a necessity for removal exists. Future development under the proposed project would not conflict with Section

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

12.04.360 of the Municipal Code. In addition, the proposed General Plan would include C-P22, which directs the City to site new development to maximize the protection of native tree species and sensitive plants and wildlife habitat and minimize impacts to protect mature trees when approving new development. Therefore, as with the 2009 Certified EIR, no impacts under the proposed project would occur.

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?

No Impact. The 2009 Certified EIR indicated that the General Plan would not conflict with the provisions of an adopted habitat conservation plan or other approved plan, including the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan. Future development under the proposed project would not conflict with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan. Therefore, as with the 2009 Certified EIR, no impacts would occur under the proposed project.

CULTURAL RESOURCES

Would the project:

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

See Impact C-1 in Section 4.4, *Land Use and Planning*, in the SEIR.

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

Less Than Significant Impact. The 2009 Certified EIR indicated that future development could impact archaeological resources and that compliance with CEQA Guidelines 15064.5(f) and General Plan policies, impacts would be less than significant.

Future development under the proposed project would require ground-disturbing activities that could impact archaeological resources. Future project-specific studies would be necessary to determine potential impacts on archaeological resources. According to CEQA Guidelines 15064.5(f), if potentially significant cultural resources are discovered during ground-disturbing activities, construction shall halt in the area until a qualified archaeologist can assess the significance and consult with the appropriate agencies regarding treatment. Additionally, the General Plan Update includes Policy C-P25, which mandates that if archaeological/paleontological resources are discovered during site excavation, the City must suspend grading and construction until a qualified archaeologist/paleontologist determines their significance. The City would also require a qualified archaeologist/paleontologist to recommend measures to protect sites with historical, unique, or paleontological resources or to conduct data recovery, excavation, analysis, and curation of these materials. City staff shall consider such recommendations and implement them where they are feasible in light of project design as previously approved by the City. Therefore, as with the 2009 Certified EIR, impacts under the proposed project would be less than significant.

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

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

Less Than Significant Impact. California Health and Safety Code Section 7050.5, CEQA Section 15064.5, and Public Resources Code Section 5097.98 mandate the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. Specifically, California Health and Safety Code Section 7050.5 requires that if human remains are discovered on a project site, disturbance of the site shall remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Additionally, the General Plan Update includes Policy C-P26, which requires that if human remains are discovered on the project site, excavation must cease, and no disturbance can occur in the surrounding area until: 1) The San Joaquin County Coroner/Sheriff is notified and determines no investigation is needed; and 2) If the remains are Native American, either the descendants provide a timely recommendation for treatment or disposal, or the Native American Heritage Commission is unable to identify a descendant or the descendant fails to make a recommendation within 24 hours.. Although soil-disturbing activities associated with development under the General Plan Update could result in the discovery of human remains compliance with existing law would ensure that significant impacts are reduced. Therefore, as with the 2009 Certified EIR, impacts under the proposed project would be less than significant.

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.

No Impact. According to the California Geological Survey, there are no Alquist-Priolo Zones in the City or SOI (CGS 2023). As with the 2009 Certified EIR, development under the proposed project would not be impacted by an Alquist-Priolo Zone. Therefore, no impacts would occur.

- ii) Strong seismic ground shaking?

Less Than Significant Impact. According to the California Geological Survey, there are no earthquake faults within the City or SOI (CGS 2023). The nearest fault zone to the City and SOI is the Green Valley Fault zone, which lies in the City of Benecia, over 35 miles west. All future

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

developments in the City and SOI would be required to comply with the most recent version of the California Building Code (CBC), which would ensure that seismic impacts are reduced. As with the 2009 Certified EIR, the potential for strong seismic ground shaking is low. Additionally, the General Plan Update includes Policy S-P24, which ensures that all public facilities, such as buildings, water tanks, underground utilities, and berms, are structurally sound and able to withstand seismic activity, and Policy S-P25 would prohibit a change in use to a higher occupancy or more intensive use until an engineering evaluation of the structure has been conducted for buildings identified as seismically unsafe which would ensure that impacts are further reduced. Therefore, the impacts would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. According to the California Geological Survey, the City and SOI are not within a liquefaction zone (CGS 2023). All future developments in the City and SOI would be required to comply with the most recent version of the CBC which would ensure that liquefaction impacts, if any, would be reduced. Additionally, the General Plan Update policies include Policy S-P27, which requires that geotechnical investigations for critical structures (e.g., police stations, fire stations, water towers, and large public buildings) before construction or building permit approval, if deemed necessary. The investigation must assess the maximum credible earthquake, ground acceleration, duration, and the potential for ground failure due to liquefaction or differential settling. As with the 2009 Certified EIR, impacts would be less than significant.

iv) Landslides?

No Impact. According to the California Geological Survey, the City and SOI are not within a landslide zone (CGS 2023). As indicated in the 2009 Certified EIR, the City and SOI are generally flat, and therefore, the risk of landslides is considered low. All future development would be required to comply with the most recent version of the CBC which would reduce the impact of landslides. The local topography is gently rolling and not subject to landslides or land failure. Nevertheless, the General Plan Update includes policies such as Policy S-P26 which requires soil reports for new projects and uses the information in the soil reports to determine appropriate permitting requirements, if it is deemed necessary. Therefore, no impacts would occur.

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

Less Than Significant Impact. Future development under the proposed project would involve soil disturbance, construction, and operation of developed land uses subject to unstable soil conditions. Any new development disturbing one or more acres during construction would be subject to the requirements of the National Pollutant Discharge and Elimination System (NPDES) Construction General Permit. The NPDES permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) which would include best management practices (BMPs) designed to control and reduce soil erosion. In addition, Section 17.50.060, Erosion and Sediment Control, of the City's Municipal Code, requires new subdivisions to be designed so that all proposed grading incorporates appropriate erosion and sediment control measures in the City's grading and water pollution control regulations. Additionally, the General Plan Update includes Policy S-P-28, which requires new development to include grading and

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

erosion control plans prepared by a qualified engineer or land surveyor which would ensure that impacts are further reduced. As with the 2009 Certified EIR, impacts would be 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 Impact. Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. As the City and SOI are not within a liquefaction or landslide zone, future development would not be at risk for lateral spreading (CGS 2023). The major cause of ground subsidence is the excessive withdrawal of groundwater. According to the California Department of Water Resources, there is no land subsidence in the City or SOI (CDWR 2023). All future developments under the proposed project would be required to comply with the most recent version of the CBC to ensure impacts are reduced. Additionally, the General Plan Update includes Policy S-P626 which requires soil reports for new projects. In the case that the soil report identifies geologic hazards for a new project then the City would determine appropriate permitting requirements. Policy S-P25 prohibits seismically unsafe buildings from adjusting to higher occupancy or intensive use until an engineering evaluation and structural deficiencies are corrected by City building codes, and Policy S-P27 mandates geotechnical investigations for proposed critical structures before construction or building permit approval, including estimation of maximum credible earthquake, ground acceleration, duration, and potential ground failure due to liquefaction or differential settling. The General Plan Update policies would require new development to be reviewed for any geologic hazards. As with the 2009 Certified EIR, impacts 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 Impact. As stated in the 2009 Certified EIR, the City and SOI are susceptible to low, medium, and high potential for soil shrink-swell. Future development under the proposed project would be constructed in compliance with the most recent version of the CBC thereby reducing impacts associated with expansive soils. Additionally, the General Plan Update includes Policy S-P26, which requires soil reports for new projects. In the case that the soil report identifies expansive soils for a new project then the City would determine appropriate permitting requirements. As with the 2009 Certified EIR, impacts would be less than significant.

- e) **Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

No Impact. Future development under the proposed project would not require the use of septic tanks or alternative wastewater disposal systems. As mentioned in Lodi's Municipal Code Section 13.12.060, Septic tanks, no person may use a septic tank for wastewater disposal if the property is located within one hundred feet of a domestic sewer system, unless permitted by the Public Works director. If a domestic sewer exists and the buildings on the property are inhabited or used by humans, the property owner(s) must install lateral service connections per Chapter 13.12, Sewer Service. All future development would be required to connect to the City's sewer system unless otherwise permitted by the Public Works director. Therefore, no impacts would occur.

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

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

Less Than Significant Impact. The 2009 Certified EIR indicated that future development could impact paleontological resources and that with the implementation of General Plan policies, impacts would be less than significant.

Future development under the proposed project would require ground-disturbing activities that could impact paleontological resources. Future project-specific studies would be necessary to determine potential impacts on paleontological resources. As paleontological resources are recognized as nonrenewable resources, they receive protection under the California Public Resources Code Section 5097.5, which prohibits the removal without permission of any paleontological site, and CEQA. Additionally, implementation of the General Plan Update policies would ensure that impacts would be reduced, such as Policy C-P25, which mandates that if archaeological/paleontological resources are discovered during site excavation, the City must suspend grading and construction until a qualified archaeologist/paleontologist determines their significance. The City would also require a qualified archaeologist/paleontologist to recommend measures to protect sites with historical, unique, or paleontological resources, or to conduct data recovery, excavation, analysis, and curation of these materials. City staff shall consider such recommendations and implement them where they are feasible in light of project design as previously approved by the City. . Therefore, as with the 2009 Certified EIR, impacts under the proposed project would be less than significant.

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?

Less Than Significant Impact. As indicated in the 2009 Certified EIR, the transportation, use, and disposal of hazardous materials would be less than significant with the compliance of state and federal regulations.

Future development under the proposed project would involve construction and operational activities that could result in the transport, use, and disposal of hazardous materials such as gasoline fuels, asphalt, lubricants, toxic solvents, pesticides, herbicides, cleansers, and paints. The transport, use, storage, and disposal of these materials would comply with existing regulations established by several agencies such as the Department of Toxic Substances Control, the US Environmental Protection Agency (EPA), the US Department of Transportation, the Occupational Safety and Health Administration, and the City's Fire Department. Additionally, the General Plan Update includes Policy S-P18, which would consider the potential for the production, use, storage, and transport of hazardous materials in approving new development and provide for reasonable controls on such hazardous materials, and Policy S-P19 regulates the production, use, storage, and transport of hazardous materials to protect the health of Lodi residents. Therefore, as with the 2009 Certified EIR, impacts under the proposed project would be less than significant.

8. IMPACTS FOUND NOT TO BE 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 indicated in the 2009 Certified EIR, compliance with state and federal regulations would reduce impacts as a result of hazardous materials.

As indicated in Impact 8.6(a), future development under the proposed project could release hazardous materials; however, compliance with state and federal regulations established by regulatory agencies, and the various laws, regulations, and programs in place (Hazardous Materials Release Response Plans and Inventories, California Accidental Release Prevention Program, etc.), as well implementation of the General Plan policies. For example, Policy S-P19 aims to regulate the production, use, storage, and transport of hazardous materials in Lodi to protect residents' health. Policy S-P19 also states to collaborate with the County and Fire Department to identify hazardous material users, develop inspection processes, and implement City Hazardous Waste Management and Hazardous Materials Area plans. Policy S-P19 would also require a hazardous materials inventory for project sites as part of development environmental reviews or business license/building permit reviews. Policy S-P31 encourages the coordination of local, State, and federal agencies to establish, maintain, and test a coordinated emergency response system that addresses a variety of hazardous and threatening situations. Policy S-P17 aims to ensure compatibility between hazardous material users and surrounding land use through development review processes, separating hazardous waste facilities from incompatible uses like schools, daycares, hospitals, public gathering areas, and high-density residential housing. As with the 2009 Certified EIR, 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. The 2009 Certified EIR indicated that impacts to schools as a result of hazardous materials would be less than significant with the implementation of state and federal regulations.

Future development under the proposed project could have the ability to emit hazardous emissions or materials within 0.25 miles of an existing or proposed school. See Impact 8.6(a) and Impact 8.6(b). The use, storage, and disposal of hazardous materials during construction would be required to comply with regulations enforced by the Occupational Safety and Health Administration, EPA, US Department of Transportation, CalRecycle, and other agencies. Additionally, the use, storage, and transport of hazardous materials and hazardous wastes in compliance with the various laws, regulations, and programs in place (Hazardous Materials Release Response Plans and Inventories, California Accidental Release Prevention Program, etc.) would minimize the potential for releases of hazardous materials. Additionally, General Plan Update Policy S-P17 would ensure compatibility between hazardous material users and surrounding land use through the development review process, which separates hazardous waste facilities from incompatible uses, including schools. Therefore, as with the 2009 Certified EIR, impacts would be less than significant.

8. IMPACTS FOUND NOT TO BE 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. According to GeoTracker and EnviroStor, there are approximately 123 hazardous materials sites in the Planning Area (SWRCB 2023; DTSC 2023). However, these lists are dynamic and can change over time as open cases get resolved and new cases are opened. These sites have a history of contamination with hazardous materials and are subject to various state and federal laws and regulations, including the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and agencies such as the EPA, DTSC, and the Regional Water Quality Control Board.

Development of future projects in accordance with the General Plan Update could create a hazard to the public or environment through soil disturbance in which soil, soil vapor, and/or groundwater may be contaminated with hazardous materials exceeding environmental screening levels for the proposed land uses if the development occurs on contaminated sites. Each development project involving a purchase or lease would have a Phase I Environmental Site Assessment (ESA) conducted for its project site. Phase I ESAs identifying recognized environmental conditions would recommend a Phase II ESA consisting of sampling and testing of soil, soil vapor, and/or groundwater for hazardous materials; and human health risk assessments based on concentrations of hazardous materials identified. Where Phase II ESAs identified substantial human health risks, remediation of hazardous materials would be recommended before the City of Lodi would issue building permits for the affected projects.

Given that there are several hazardous materials sites in the City and SOI, impacts may occur from development in accordance with the General Plan Update. However, compliance with local, state, and federal regulations would require investigations and remediations. Additionally, the General Plan Update includes Policy SP-12, which would consider the potential for the production, use, storage, and transport of hazardous materials in approving new development and provide for reasonable controls on such hazardous materials, and Policy SP-13, which would regulate the production, use, storage, and transport of hazardous materials to protect the health of Lodi residents. Policy SP-13 also requires cooperating with the County and Lodi Fire Department in the appropriate identification of hazardous material users, development of an inspection process, and implementation of the City's Hazardous Waste Management and Hazardous Materials Area plans, which would ensure that impacts would be reduced. Therefore, as with the 2009 Certified EIR, impacts would be less than significant.

- 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?**

No Impact. There are no airports in the City or SOI, but two small private airports, the Lodi Airpark and Kingdon Airpark, are within two miles of the City; additionally, the Lodi Airport is approximately 3.7 miles north of the City (AirNav 2023). The Lodi Airpark influence area extends across the Armstrong Road Agricultural Cluster Study Area, which is adjacent to the SOI boundary, and the Kingdon Airpark influence area extends across the agricultural land in the portion of the City that is bisected by I-5 (San Joaquin County 2009). Because no development would be proposed in these areas and given the distance of these

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

airports from the City's boundaries, the airports do not present substantial hazards to people in Lodi. As with the 2009 Certified EIR, no impacts would occur.

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

Less Than Significant Impact. The 2009 Certified EIR indicated that the City provides street standards for all street types, therefore ensuring appropriate emergency access and evacuation.

An impact on emergency operations and evacuation under the proposed project could occur from the construction of potential future development projects if they were to result in permanent or temporary road closures, therefore potentially altering evacuation routes. The San Joaquin County Local Hazard Mitigation Plan is intended to reduce the risk to life and safety and the risk of property damage and service disruption by natural hazards (San Joaquin County 2023). During an emergency, the Lodi Fire and Police Departments, San Joaquin County Sheriff's Department, and San Joaquin County Fire Prevention Bureau would work together to ensure adequate emergency response. If future projects require temporary road closures during construction activities (e.g., to install new utility lines), approval from the City would be required. As part of the City's review process, the City would ensure that access is maintained or that detour(s) are clearly marked. Future development would be required to comply with applicable fire and building codes which have requirements for maximum lengths of single-access roads, minimum widths of roadways, and vegetation fuel management around roadways. Additionally, the General Plan Update includes Policy S-P31 mandates collaboration with local, state, and federal agencies to establish and test a coordinated emergency response system for hazardous situations. It also involves periodic exercises to test the effectiveness of city procedures, public information programs on disaster response and preparedness, and mutual aid agreements with surrounding communities for emergency assistance. Therefore, impacts would be less than significant, as with the 2009 Certified EIR.

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

No Impact. The City and SOI are not designated a fire hazard severity zone (FHSZ) in a State Responsibility Area (SRA)(CAL FIRE 2023). However, according to CAL FIRE's LRA Fire Hazard Severity Zone Map for San Joaquin County, certain areas of Lodi, particularly near the city's edge, are classified as a moderate FHSZ under the Local Responsibility Area (LRA) (CAL FIRE 2007). Therefore, future development under the proposed project would not be exposed to wildland fires. All future development would be required to comply with the most recent version of the CBC and California Fire Code, which would include the installation of sprinklers and adequate access points. Therefore, no impacts would occur.

HYDROLOGY AND WATER QUALITY

Would the project:

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

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

Less Than Significant Impact. Runoff from storms or nuisance flows from projects can carry pollutants to receiving waters. Runoff can contain pollutants such as oil, fertilizers, pesticides, trash, soil, and animal waste. This runoff can flow directly into local streams, lakes, or storm drains and continue through pipes until it is released untreated into a local waterway and eventually the ocean. Untreated stormwater runoff degrades waters and groundwater and can affect drinking water, human health, and plant and animal habitats if left unmitigated and unregulated.

Clearing, grading, excavation, and construction activities associated with future development under the proposed project could impact water quality due to erosion of exposed soils and subsequent deposition of particulates in local drainages. Grading activities lead to exposed areas of loose soil and sediment stockpiles that are susceptible to uncontrolled sheet flow. Although erosion occurs naturally in the environment, primarily from weathering by water and wind action, improperly managed construction activities can lead to substantially accelerated rates of erosion that are considered detrimental to the environment.

Compliance with state and local regulations would effectively mitigate construction stormwater runoff impacts from future development. Chapter 13.14, Stormwater Management and Discharge Control, of the Lodi Municipal Code, aims 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. Additionally, the development of sites one acre or greater would be required to comply with the Statewide Construction General Permit to ensure that the potential for soil erosion is minimized on a project-by-project basis and is subject to oversight by the Central Valley Regional Water Quality Control Board. Moreover, construction sites would be required to prepare and implement SWPPPs in accordance with the site-specific risk analyses based on the grading plans. The SWPPP must describe construction best management practices (BMPs) that address source reduction and provide measures/controls (erosion controls, sediment controls, tracking controls, etc.) to mitigate potential pollutant sources. The implementation of operational BMPs, low-impact development treatments, and water quality treatment solutions in project-specific water quality management plans would ensure that operational activities reduce pollutant release into waterways. As part of the statewide mandate to reduce trash in receiving waters, the City is required to adhere to the requirements of the amended trash total maximum daily load (TDML). The requirements include the installation and maintenance of trash screening devices at all public curb inlets and catch basin inlets. The trash screening devices must be approved by the City and be consistent with the minimum standards of the trash TMDL. New industrial uses (manufacturing and processing) are also required to file a General Industrial Permit with the state and prepare a SWPPP that addresses operational features to control stormwater pollutants and monitoring and reporting requirements. Additionally, the General Plan Update includes Policy C-G8, which would protect and improve water quality in the Mokelumne River, Lodi Lake, and major drainage ways. Therefore, as with the 2009 Certified EIR, impacts would be less than significant.

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

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

Less Than Significant Impact. According to the 2020 Urban Water Management Plan (UWMP), the City relies on local groundwater from the Eastern San Joaquin Subbasin, which is not adjudicated, and surface water supplies from the Mokelumne River purchased from Woodbridge Irrigation District. The City's primary source of water is groundwater that is pumped using 28 groundwater production wells distributed throughout the water service area (Lodi 2021). Population increases would generate a higher demand for groundwater resources. The 2020 UWMP indicated that historical fluctuations in groundwater levels due to changes in climatic conditions have not significantly impacted well production capacity or the City's capability to fulfill potable water demand. The 2020 UWMP indicated that there is adequate supply to meet the demand from 2025 to 2045 in normal years; however, the demand would exceed the supply in 2045 during a single dry year, and in 2040 and 2045 during multiple dry years (Lodi 2021). According to the 2020 UWMP, the City plans to begin a water treatment plan expansion by 2030 to cover the differences between the projected supply and demands. Additionally, the City's water-saving actions through the Water Shortage Contingency Plan and Demand Management Measures would help reduce demand, especially during dry years (Lodi 2021). Because the subbasin is not adjudicated, it is managed by the Eastern San Joaquin Groundwater Authority, which identifies ways to manage the groundwater basin, as well as focusing on maintaining or enhancing groundwater levels. The 2020 UWMP indicated that the Eastern San Joaquin Subbasin is critically overdrafted due to decreasing groundwater levels largely associated with agricultural and municipal pumping. As a member agency of the Eastern San Joaquin Groundwater Authority, the City is participating in the development of policies and programs that include groundwater recharge and conjunctive use programs to help eliminate the Subbasin's overdraft condition.

The proposed project would also need to comply with state water efficiency standards, including installing low-flow water fixtures as outlined in the CALGreen and California Plumbing Codes and the Model Water Efficient Landscape Ordinance (MWELO) requirements for water-efficient landscaping.

Additionally, the proposed project includes Policy C-P20, which supports the protection, restoration, expansion, and management of wetland and riparian plant communities along the Mokelumne River for passive recreation, groundwater recharge, and wildlife habitat. While the Eastern San Joaquin Subbasin is critically overdrafted, and population increases under the General Plan Update would increase the demand for groundwater, the City has water-saving programs, and General Plan Policy GM-P17 encourages cooperation with the Northeastern San Joaquin County Groundwater Banking Authority, other member water agencies, and the Woodbridge Irrigation District to retain surface water rights and groundwater supply. Also, Policy S-P10 requires updates of the City's Zoning Ordinance and development review process as needed to reduce peak-hour stormwater flow and increase groundwater recharge. Policy S-P10 lists provisions to consider, such as constructing parking areas and parking islands without curbs and gutters, to allow stormwater sheet flow into vegetated areas. Additionally, the City's Municipal Code Chapter 17.30, Landscaping, focuses on conserving and safeguarding water resources through efficient water use, suitable plant selections, and regular maintenance of landscaped areas. These General Plan Update policies and local and state regulations would ensure impacts are less than significant.

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

- 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;

Less Than Significant Impact. The 2009 Certified EIR indicated that compliance with state and local regulations, as well as BMPs, would reduce impacts related to erosion and siltation.

Future development under the proposed project would involve construction activities that could increase the potential for erosion and/or siltation. Standard erosion control measures and BMPs would be implemented as part of the SWPPP for any proposed project to minimize the risk of erosion or sedimentation during construction. The SWPPP must include a sedimentation control plan that prescribes measures such as phased grading, limiting areas of disturbance, designating restricted-entry zones, diverting runoff from disturbed areas, protective measures for sensitive areas, outlet protection, and provisions for revegetation or mulching. The erosion control plan would also include treatment measures to trap sediment, including inlet protection, straw bale barriers, straw mulching, straw wattles, silt fencing, check dams, terracing, and siltation or sediment ponds. Additionally, implementation of the General Plan policies such as Policy C-P7 would require new development to implement measures that minimize soil erosion from wind and water related to construction and urban development. Therefore, as with the 2009 Certified EIR, impacts would be less than significant.

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

Less Than Significant Impact. Development within the City and SOI would result in an increase in impervious surfaces; increased volumes and velocities could create nuisance flooding in areas without adequate drainage facilities. The new development would use the existing drainage facilities within the public right-of-way. Current runoff is captured and conveyed by existing storm drain infrastructure in the City and SOI. Projects would be responsible for the design of storm drain facilities, which would reduce the amount of flooding, according to the San Joaquin County Flood Control and Water Conservation District requirements and Lodi Municipal Code Chapter 15.60, Flood Damage Prevention. Standard flood control requirements, such as the implementation of detention basins to control on- and off-site flooding and debris, would minimize the impacts of increased flows and volumes on downstream receiving waters.

Therefore, while future development would increase the number of impervious surfaces in the City, compliance with the San Joaquin County Flood Control and Water Conservation District and requirements of Chapter 15.60, Flood Damage Prevention, of the Lodi Municipal Code in addition to the implementation of standard flood control requirements, would ensure that on- or off-site flooding as a result of runoff would be reduced. Additionally, implementation of the General Plan policies, including Policy S-P6, prohibit new development, except for public uses incidental to open space development, within Zone A (100-year flood zone) of the most current FEMA floodplain map. Also, Policy S-P10 directs the City to update the Zoning Ordinance and

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

development review process as needed to reduce peak-hour stormwater flow and increase groundwater recharge. Policy S-P10 lists provisions to consider such as grading that lengthens flow paths and increases runoff travel time to reduce the peak flow rate.

Therefore, the impacts would be less than significant.

- iii) **create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or**

Less Than Significant Impact. The 2009 Certified EIR indicated that while polluted runoff may increase, compliance with the Central Valley Regional Water Quality Control Board standards and the use of BMPs would reduce impacts.

Future development under the proposed project would result in an increase in impervious surfaces, which could increase the pollutant load on storm drain systems. Runoff from future projects would be conveyed and captured by existing storm drain infrastructure, and all future storm drain facilities would be constructed by the San Joaquin County Flood Control and Water Conservation District requirements. On-site storm drain systems would likely change with the individual project components but would still use the existing facilities within the public right-of-way. Implementation of proposed land uses in future redevelopment areas would not result in substantial increases in surface water peak flows or volumes over the existing conditions and would likely result in reduced discharges due to on-site water quality and Low Impact Development features and BMPs. Additionally, implementation of the General Plan Update policies includes Policy S-P6, prohibit new development, except for public uses incidental to open space development, within Zone A (100-year flood zone) of the most current FEMA floodplain map. Also, Policy S-P10 requires the City to update the Zoning Ordinance and development review process as needed to reduce peak-hour stormwater flow and increase groundwater recharge. Policy S-P10 lists provisions to consider, such as constructing parking areas and parking islands without curbs and gutters, to allow stormwater sheet flow into vegetated areas. Therefore, as with the 2009 Certified EIR, the impact of the proposed project would be less than significant.

- iv) **impede or redirect flood flows?**

Less Than Significant Impact. The 2009 Certified EIR indicated that no new development would be proposed within the Zone AE area, and that implementation of the General Plan policies would reduce impacts.

According to the Federal Emergency Management Agency (FEMA), the majority of the City and SOI are in Zone X, which is an area with 0.2 percent annual flood hazard. The western portion of the City that is bisected by I-5 is designated Zone A, an area with a 1 percent chance of flooding, and the northern portion of the City, along the Mokelumne River, is designated Zone A and Zone AE, an area where base flood elevations are provided (regulatory floodway) (FEMA 2009). Land in the western portion of the City that is bisected by I-5 currently contains agricultural uses, and no land use changes are proposed in this area under the proposed project. The area of the City designated Zone A and Zone AE is along the Mokelumne River and contains open space as well as

8. IMPACTS FOUND NOT TO BE SIGNIFICANT

some residential uses. Because this area is currently developed or designated open space, no additional land uses would be constructed in this area. Moreover, Chapter 15.60, Flood Damage Prevention, of the Lodi Municipal Code, is intended to promote the public health, safety, and general welfare of people and property by restricting or prohibiting dangerous uses, controlling the alteration of natural floodplains, etc. The General Plan Update includes Policy S-P6, prohibits new development, except for public uses incidental to open space development, within Zone A (100-year flood zone) of the most current FEMA floodplain map. Also, Policy S-P10 requires the City to update the Zoning Ordinance and development review process as needed to reduce peak-hour stormwater flow and increase groundwater recharge. Implementation of the General Plan Update policies would ensure that impacts would be reduced. Therefore, as with the 2009 Certified EIR, impacts under the proposed project would be less than significant.

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

Less Than Significant Impact. The 2009 Certified EIR indicated that large quantities of water stored in reservoirs along the Mokelumne, Calaveras, and Stanislaus River systems, as well as the Camanche Dam, Camanche South and North Dikes, and Pardee Dam, pose a potential threat to residents. The 2009 Certified EIR indicated that impacts would be less than significant with the implementation of the Dam Failure Plan and General Plan policies.

The City and SOI are over 60 miles from the Pacific Ocean and therefore are not within a tsunami zone. As with the 2009 Certified EIR, the City and SOI would be at risk of dam inundation, which could release pollutants. The San Joaquin County Flood and Dam Failure Annex is intended to guide the coordination of agencies and organizations during incidents of flooding or dam failure within the County (San Joaquin County 2019). The San Joaquin County Local Hazard Mitigation Plan is intended to provide strategies for the County and other local jurisdictions to identify and implement mitigation actions for reducing damages from various disasters (San Joaquin County 2023). Implementation of the San Joaquin County Flood and Dam Failure Annex and San Joaquin Local Hazard Mitigation Plan and General Plan policies would reduce inundation impacts, including Policy S-P2, which directs the City to cooperate with appropriate local, State, and federal agencies to address local and regional flood issues and dam failure hazards, and Policy S-P3, which requires adequate natural floodway design to assure flood control in areas where stream channels have been modified. Therefore, as with the 2009 Certified EIR, impacts would be less than significant.

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

Less Than Significant Impact. As indicated in Impact 8.7(a), several measures would be implemented to ensure future development would result in a less than significant impact on surface and groundwater quality. These measures would also ensure that future development does not obstruct or conflict with the implementation of the City's UWMP or plans established for the Eastern San Joaquin Subbasin. Impact 8.7(b) indicates that although the City's demand would exceed supplies, the expansion of the water treatment facility and implementation of saving actions through the Water Shortage Contingency Plan and Demand Management Measures would help reduce demand. Because the subbasin is not adjudicated, it is managed by the Eastern San Joaquin Groundwater Authority, which identifies ways to

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manage the groundwater basin as well as maintain or enhance groundwater levels. Therefore, the impacts would be less than significant.

MINERAL RESOURCES

- 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?

No Impact. According to the 2009 Certified EIR, the City and SOI are designated MRZ-1, which are areas where no significant mineral deposits are likely to exist.

According to the California Geological Survey, the majority of the City and SOI are designated MRZ-1, with a portion in the western part of the City designated MRZ-3, which are areas where mineral deposit significance cannot be determined (CGD 2012). There are no known mineral resources in the City and SOI; therefore, as with the 2009 Certified EIR, no impacts would occur under the proposed project.

- 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?

No Impact. See Impact 8.9(a). There are no locally important mineral resource recovery sites in the City or SOI, which are designated MRZ-1 and MRZ-3. Future development under the proposed project would not result in the loss of availability of a locally important mineral resource. As with the 2009 Certified EIR, no impacts would occur under the proposed project.

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 Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or 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 Resource Code Section 5024.1. In applying the criteria set forth in subdivision (c) of the Public Resource Code Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance to a California Native American tribe?

Less Than Significant Impact. See Impact 8.4(a) and Impact 8.4(c), above. As with the 2009 Certified EIR, impacts to tribal resources would be reduced to less than significant with the compliance of state and federal regulations. Additionally, compliance with California Health and Safety Code Section 7050.5, CEQA Section 15064.5, and Public Resources Code Section 5097.98 would ensure appropriate regulations and

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processes are followed upon the accidental discovery of human remains found outside of a dedicated cemetery, including Native American remains. Additionally, future development would require consultation with Native American tribes pursuant to Assembly Bill (AB) 52 and/or Senate Bill (SB) 18 to ensure the consideration of tribal cultural resources and their treatment and disposition. On December 20, 2024, the City of Lodi sent notification letters to the tribes listed by the Native American Heritage Commission, including: Buena Vista Rancheria of Me-Wuk Indians, California Valley Miwok Tribe, Chicken Ranch Rancheria of Me-Wuk Indians, Lone Band of Miwok Indians, Nashville Enterprise Miwok-Maidu-Nishina Tribe, North Valley Yokuts Tribe, Tule River Indian Tribe, United Auburn Indian Community of the Auburn Rancheria, Wilton Rancheria, and Confederated Villages of Lisjan. To date, none of the contacted tribes have requested consultation.

Additionally, implementation of the General Plan Update policies such as Policy C-P26, which requires that if human remains are discovered on the project site, excavation must cease, and no disturbance can occur in the surrounding area until: 1) The San Joaquin County Coroner/Sheriff is notified and determines no investigation is needed; and 2) If the remains are Native American, either the descendants provide a timely recommendation for treatment or disposal, or the Native American Heritage Commission is unable to identify a descendant or the descendant fails to make a recommendation within 24 hours. As with the 2009 Certified EIR, impacts would be less than significant.

WILDFIRE

Would the project:

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

Less Than Significant Impact. The 2009 Certified EIR indicated that no portions of the City or SOI are in a Very High FHSZ and therefore would not increase the risk of exposure to fire hazards. The 2009 Certified EIR indicated that the City provides street standards for all street types, therefore ensuring appropriate emergency access and evacuation.

Chapter 2.32, Emergency Services, of the Lodi Municipal Code, is intended to provide for the preparation and carrying out of plans for the protection of persons and property within the City in the event of an emergency. Additionally, the San Joaquin County Local Hazard Mitigation Plan is intended to reduce the risk to life and safety and the risk of property damage and service disruption by natural hazards. Buildout of the City under the proposed project would not result in substantial changes to the circulation pattern or emergency access routes. During an emergency, standard response procedures of the Lodi Fire and Police Departments, San Joaquin County Sheriff's Department, and San Joaquin County Fire Prevention Bureau would work together to ensure adequate emergency response. All future development would be required to comply with the most recent version of the CBC and California Fire Code (CFC), which would include the installation of sprinklers and adequate access points.

Additionally, implementation of the General Plan Update policies would reduce impacts, such as Policy S-P32, which maintains and periodically updates the City's Emergency Preparedness Plan, including review of County and State emergency response procedures that must be coordinated with City

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procedures, and Policy S-P31 mandates collaboration with local, state, and federal agencies to establish and test a coordinated emergency response system for hazardous situations. It also involves periodic exercises to evaluate the effectiveness of city procedures, public information programs on disaster response and preparedness, and mutual aid agreements with surrounding communities for emergency assistance. Therefore, as with the 2009 Certified EIR, impacts would be less than significant.

- 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. There are three primary factors used in assessing wildfire hazards—topography, weather, and fuel. The City is primarily flat and urbanized. The proposed project would not impact weather or topography. Future development within the City would require it to adhere to state and local codes, such as the CFC, CBC, and Chapter 2.32, Emergency Services, of the Lodi Municipal Code. Neither the City nor the SOI are in a very high FHSZ. Therefore, the impacts of exposing occupants to pollutant concentrations by exacerbating wildfire risk would be less than significant.

- 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 City of Lodi is urbanized; future development may require connections to existing utility lines and/or new infrastructure for electricity, natural gas, telecommunications, and cable service. Neither the City nor the SOI are in a very high FHSZ; future infrastructure would be installed to meet the requirements of service providers. Additionally, implementation of the General Plan Update includes Policy S-P29, which directs the City to maintain a vegetation management program to ensure clearing of dry brush areas and to conduct activities in a manner consistent with all applicable environmental regulations. Therefore, the impacts would be less than significant.

- 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 City and SOI are generally flat, and the majority of the City and SOI are within Flood Zone X, with portions in Zone A and Zone AE. Chapter 15.60, Flood Damage Prevention, of the Lodi Municipal Code, is intended to promote the public health, safety, and general welfare of people and property by restricting or prohibiting dangerous uses, controlling the alteration of natural floodplains, etc. The City and SOI are not at risk of landslides or slope instability. Therefore, it is unlikely that the City or SOI would be susceptible to downslope or downstream flooding or landslides as a result of post-fire slope instability. Moreover, neither the City nor SOI are in a very high FHSZ. Additionally, implementation of the General Plan Update policies would ensure that impacts would be reduced, such as Policy S-P6, which prohibits new development, except for public uses incidental to open space development, within Zone A (100-year flood zone) of the most current FEMA floodplain map. In addition, Policy S-P7 will annually update data on the 200-year floodplain and make this information available for development reviews within the floodplain area. Policy S-P8 will not approve certain permits or development agreements for projects in the 200-year floodplain unless they meet specific flood protection criteria outlined in the Lodi Municipal Code. Policy S-P9 states that critical emergency response facilities, such as hospitals and fire

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stations, will be located outside the 200-year floodplain to reduce exposure to flooding and other hazards. Therefore, the impacts would be less than significant.

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