



Los Banos General Plan 2042 Draft EIR

for the City of Los Banos

June 2022

State Clearinghouse Number 2022010254





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SOURCES

In addition to the technical appendices, all documents cited in this report and used in its preparation are hereby incorporated by reference into this Draft EIR. Copies of documents referenced herein are available for review online at <https://www.losbanos2042.org>.

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1. Introduction

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, Chapter 14 of the California Code of Regulations, Section 15378(a), the proposed Los Banos General Plan 2042 and Annexation Ordinance is considered a “project” subject to environmental review. Their implementation is “an action [undertaken by a public agency] which has the potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment.” This Draft Environmental Impact Report (EIR) provides an assessment of the potential environmental consequences of adoption and implementation of the proposed Los Banos General Plan 2042 and Annexation Ordinance, together referred to as the “proposed project.”

This Draft EIR identifies mitigation measures and alternatives to the proposed project that would avoid or reduce significant impacts. This Draft EIR compares the development of the proposed project with the existing baseline condition, described in detail in Chapter 4, *Environmental Analysis*, and each subchapter, 4.1 through 4.17. The City of Los Banos (City) is the lead agency for the proposed project. This assessment is intended to inform the City’s decision makers, other responsible agencies, and the public of the nature of the proposed project and its effect on the environment.

1.1 PROPOSED ACTION

If approved by the Los Banos City Council, the proposed project would replace the City’s existing General Plan, which was last comprehensively updated in 2009 and has a buildout horizon of 2030. The proposed project is intended to guide development and conservation in the city. The proposed General Plan 2042 would build off the current General Plan 2030 and provide a direct framework for the upcoming changes experienced in Los Banos and the expected growth in the coming decades; as well as land use, transportation, and conservation decisions through the horizon year of 2042. The proposed Annexation Ordinance would amend the Los Banos Municipal Code to set new standards for future annexations from unincorporated Merced County into the Los Banos city limit.

Adoption and implementation of the proposed project is projected to result in 8,900 new households, 29,600 new residents, and 5,000 new jobs by 2042. See Chapter 3, *Project Description*, of this Draft EIR for additional details on the proposed project. See the No Project Alternative in Chapter 5, *Alternatives to the Proposed Project*, for a comparison of the existing General Plan 2030 and the proposed General Plan 2042.

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1.2 EIR SCOPE

This Draft EIR is a program EIR that analyzes the adoption and implementation of the proposed project. This is in contrast to a project-level EIR, which is used to identify and analyze the potential impacts of site-specific construction and operation. CEQA and the CEQA Guidelines allow the lead agencies to prepare a number of types of EIRs. Different types of EIRs are used for varying situations and intended uses. Section 15168 of the CEQA Guidelines states that program EIRs are appropriate when a project consists of a series of actions related to the issuance of rules, regulations, and other planning criteria.

In this case, the proposed project that is the subject of this Draft EIR consists of a long-term plan and set of regulatory changes that would be implemented over time as policy documents and regulations guiding future development activities and City actions. No specific development projects are proposed as part of the proposed project. Therefore, this EIR is a program-level EIR that analyzes the potential environmental effects of the adoption and implementation of the proposed project. As a program EIR, it does not evaluate the impacts of individual projects that may be proposed in the future under the proposed project. However, if the program EIR addresses the program's effects as specifically and comprehensively as is reasonably possible, and later activities are within the scope of the effects examined in the program EIR, then additional environmental review may not be required for those future projects.¹

When a program EIR is relied on for a subsequent activity, the lead agency must incorporate feasible mitigation measures and alternatives developed in the program EIR into the subsequent activities (CEQA Guidelines Section 15168[c][3]). If a subsequent activity would have effects that are not within the scope of the program EIR, the lead agency must prepare a new Initial Study leading to a Negative Declaration, a Mitigated Negative Declaration, or an EIR, unless the activity qualifies for an exemption. For these subsequent environmental review documents, this program EIR will serve as the first-tier environmental analysis. The program EIR can also serve to streamline future environmental review of subsequent projects.

1.3 ENVIRONMENTAL REVIEW PROCESS

1.3.1 DRAFT EIR

Pursuant to CEQA Section 21080(d) and CEQA Guidelines Section 15063, the City determined that the proposed project could result in potentially significant environmental impacts and that an EIR would be required. In compliance with Section 21080.4 of the California Public Resources Code, the City circulated a Notice of Preparation (NOP) of an EIR for the proposed project to the Office of Planning and Research State Clearinghouse and interested agencies and persons on January 18, 2022, for a 30-day review period. A public Scoping Meeting was held virtually on Wednesday, January 26, 2022, at 6:00 pm. The NOP and scoping process solicited comments from responsible and trustee agencies, as well as interested parties regarding the scope of the environmental analysis to be conducted in the Draft EIR. Appendix A, *Notice of*

¹ CEQA Guidelines Section 15168(c) and CEQA streamlining provisions.

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Preparation and Scoping Comments, of this Draft EIR contains the NOP as well as the comments received by the City in response to the NOP.

This Draft EIR will be available for review by the public and interested parties, agencies, and organizations for a 45-day comment period starting Friday, June 17, 2022, and ending Monday, August 1, 2022. During the comment period, the public is invited to submit written comments via mail or email on the Draft EIR to the City of Los Banos Community and Economic Development Department by 5:00 pm on Monday, August 1, 2022.

Written comments should be submitted to Stacy Souza Elms to the address or email below with “*Los Banos General Plan 2042 EIR*” as the subject.

Mail: Stacy Souza Elms, Community & Economic Development Director
Community & Economic Development Department
City of Los Banos
520 J Street
Los Banos, CA 93635

Email: stacy.souza@losbanos.org

1.3.2 FINAL EIR

Upon completion of the 45-day review period for the Draft EIR, the City will review all written comments received and prepare written responses to each comment on the adequacy of the EIR. A Final EIR will then be prepared, which contains all of the comments received, responses to comments raising environmental issues, and any changes to the Draft EIR. The Final EIR will then be presented to the Planning Commission where a public hearing will allow for public comment on the Final EIR and to consider recommendation for certification of the Final EIR. Following the public hearing, the Final EIR will be presented to City Council for consideration of the certification as the environmental document for the proposed project. All persons who commented on the Draft EIR will be notified of the availability of the Final EIR and the date of the public hearing, which is tentatively scheduled to be held in August 2022.

All responses to comments submitted on the Draft EIR by agencies will be provided to those agencies at least 10 days prior to certification of the EIR. The City Council will make findings regarding the extent and nature of the impacts as presented in the Final EIR. The Final EIR will need to be certified as having been prepared in compliance with CEQA by the City prior to making a decision to approve or deny the proposed project. Public input is encouraged at all public hearings before the City.

If the City Council certifies the Final EIR, it may then consider the proposed project. If approved, the City Council would adopt and incorporate into the project all feasible mitigation measures identified in the EIR and it may also require other feasible mitigation measures.

In some cases, the City Council may find that certain mitigation measures are outside the jurisdiction of the City to implement, or that no feasible mitigation measures have been identified for a given significant impact. In that case, the City Council may nonetheless determine that economic, legal, social,

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technological, or other benefits of the proposed project outweigh the unavoidable, significant effects on the environment.

1.3.3 MITIGATION MONITORING

CEQA Section 21081.6 requires that the lead agency adopt a Mitigation Monitoring and Reporting Program (MMRP) for any project for which it has made findings pursuant to CEQA Section 21081 or adopted a Negative Declaration pursuant to CEQA Section 21080(c). Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR or Negative Declaration. If mitigation measures are required, the MMRP for the proposed project will be completed congruently as part of the Final EIR process.

1.4 USE OF THE GENERAL PLAN EIR

1.4.1 TIERING PROCESS

CEQA includes several provisions to streamline the environmental review of qualified projects based on several factors. These include where environmental review has already occurred (e.g., a program-level EIR), which could apply to future development in the EIR Study Area.

The CEQA concept of “tiering” refers to the evaluation of general environmental matters in a broad program-level EIR, with subsequent focused environmental documents for individual projects. CEQA and the CEQA Guidelines encourage the use of tiered environmental documents to reduce delays and excessive paperwork in the environmental review process. This is accomplished in tiered documents by eliminating repetitive analyses of issues that were adequately addressed in the program EIR and by incorporating those analyses by reference.

Section 15168(d) of the CEQA Guidelines provides for simplifying the preparation of environmental documents by incorporating by reference analyses and discussions. Where an EIR has been prepared or certified for a program or plan, the environmental review for a later activity consistent with the program or plan should be limited to effects that were not analyzed as significant in the prior EIR or that are susceptible to substantial reduction or avoidance (CEQA Guidelines Section 15152[d]).

By tiering from the program EIR, the environmental analysis for a future project would rely on the program EIR for the following:

1. A discussion of general background and setting information for environmental topic areas;
2. Overall growth-related issues;
3. Issues that were evaluated in sufficient detail in the program EIR for which there is no significant new information or change in circumstances that would require further analysis;
4. Assessment of cumulative impacts; and
5. Mitigation measures adopted and incorporated into the proposed project.

1.4.1.1 BASE RESOURCE FOR GENERAL PLAN IMPLEMENTATION AND REVIEW OF FUTURE DEVELOPMENT PROJECTS

As a program EIR, this document and the mitigation measures presented herein, will be used as a guide for implementing the General Plan 2042 policies and actions, as well as adopting changes in City codes, regulations, and practices.

This program EIR will also be used as a base resource for reviewing future development projects. This document will assist in guiding the assessment of projects and provide environmental review tiering, where appropriate. Currently, the City completes the following steps in reviewing development projects, which will be carried forward under the General Plan 2042 if adopted.

- **Project Consistency with the General Plan and City Codes.** When a new development project is filed with the City, it is reviewed for completeness and consistency with the General Plan goals, policies, and actions, and City codes and practices. Because City policies, actions, and codes, presented in this program EIR will minimize impacts, development projects will inherently implement these measures to: (a) mitigate environmental impacts and (b) achieve consistency with the General Plan and compliance with City codes.
- **Projects Subject to Environmental Review.** For future development projects subject to environmental review, the resources contained within this EIR and carried forward in the General Plan 2042 will guide the scope of this review. For project-level environmental review, many of the topic areas studied in this program EIR will adequately cover and provide environmental clearance for the project. However, the preparation of site-specific studies and reports may be necessary based on the location and nature of the development project. The resources presented in this program EIR will assist in determining when and where a special, site-specific study is warranted.
- **Projects Exempt from Environmental Review.** CEQA includes a long list of environmental review exemptions. Some of the future development projects may be exempt from environmental review as the project impacts will be adequately covered by this program EIR. However, many of the CEQA exemptions require compliance with specific criteria for the development project to qualify for the exemption. The resources contained within this EIR and carried forward in General Plan 2042 will be used to determine if the CEQA-prescribed criteria have been met to qualify for the exemption. One example of a CEQA exemption is for projects that are infill development and consistent with the General Plan land use designation and zoning district. CEQA provides for these types of projects to conduct streamlined review under CEQA Guidelines Section 15332, *Infill Development Projects*, and CEQA Guidelines Section 15138.3, *Streamlining for Infill Projects*, where the project meets certain criteria.

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2. Executive Summary

This chapter presents an overview of the proposed Los Banos General Plan 2042 and Annexation Ordinance, also referred to as the “proposed project.” This chapter also provides a summary of the alternatives to the proposed project, identifies issues to be resolved, areas of controversy, and conclusions of the analysis contained in Sections 4.1 through 4.17 of this Draft Environmental Impact Report (EIR). For a complete description of the proposed project, see Chapter 3, *Project Description*. For a discussion of alternatives to the proposed project, see Chapter 5, *Alternatives to the Proposed Project*.

This Draft EIR addresses the environmental effects associated with adoption and implementation of the proposed project. The California Environmental Quality Act (CEQA) requires that local government agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An EIR is a public document designed to provide the public, local, and State governmental agency decision makers with an analysis of potential environmental consequences to support informed decision making.

This Draft EIR has been prepared pursuant to the requirements of CEQA¹ and the CEQA Guidelines² to determine if approval of the identified discretionary actions and related subsequent development could have a significant impact on the environment. As lead agency, the City of Los Banos (City) has reviewed and revised as necessary all submitted drafts, technical studies, and reports to reflect its own independent judgment, including reliance on applicable City technical personnel and review of all technical reports. Information for this Draft EIR was obtained from on-site field observations; discussions with public service agencies; analysis of adopted plans and policies; review of available studies, reports, data, and similar literature in the public domain; and specialized environmental assessments (e.g., air quality, greenhouse gas emissions, noise, and transportation).

2.1 ENVIRONMENTAL PROCEDURES

This Draft EIR has been prepared to assess the environmental effects associated with implementation of the proposed project. The main objectives of this document, as established by CEQA, are:

- To disclose to decision makers and the public the significant environmental effects of proposed activities.
- To identify ways to avoid or reduce environmental damage.

¹ The CEQA Statute is found at California Public Resources Code, Division 13, Sections 21000-21177.

² The CEQA Guidelines are found at California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387.

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- To prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
- To disclose to the public reasons for agency approval of projects with significant environmental effects.
- To foster interagency coordination in the review of projects.
- To enhance public participation in the planning process.

An EIR is the most comprehensive form of environmental documentation identified in the CEQA statute and in the CEQA Guidelines. It provides the information needed to assess the environmental consequences of a proposed project, to the extent feasible. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts. An EIR is also 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. Prior to approving a proposed project, the lead agency must consider the information contained in the EIR, determine whether the EIR was properly 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 Considerations³ if the proposed project would result in significant and unavoidable impacts.

2.1.1 REPORT ORGANIZATION

This Draft EIR is organized into the following chapters:

- **Chapter 1: Introduction.** Provides an overview describing the Draft EIR.
- **Chapter 2: Executive Summary.** Summarizes environmental consequences that would result from implementation of the proposed project, describes recommended mitigation measures, and indicates the level of significance of environmental impacts with and without mitigation.
- **Chapter 3: Project Description.** Describes the proposed project in detail, including the characteristics, objectives, and the structural and technical elements of the proposed action.
- **Chapter 4: Environmental Evaluation.** Organized into 17 subchapters corresponding to the environmental resource categories identified in Appendix G, *Environmental Checklist*, of the CEQA Guidelines, these subchapters provide a description of the physical environmental conditions in the vicinity of the proposed project as they existed at the time the Notice of Preparation was published, from both a local and regional perspective. Additionally, this chapter provides an analysis of the potential environmental impacts of the proposed project, and recommended mitigation measures, if required, to reduce the impacts to less than significant where possible, and to reduce their magnitude or significance when impacts cannot be reduced to a less-than-significant level. The environmental setting included in each subchapter provides baseline physical conditions, which provide a context

³ CEQA Guidelines Section 15093.

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that the lead agency uses to determine the significance of environmental impacts resulting from the proposed project. Each subchapter also includes a description of the thresholds used to determine if a significant impact would occur, the methodology to identify and evaluate the potential impacts of the proposed project, and the potential cumulative impacts associated with the proposed project.

- **Chapter 5: Alternatives to the Proposed Project.** Considers alternatives to the proposed project, including the CEQA-required “No Project Alternative” and “Environmentally Superior Alternative.”
- **Chapter 6: CEQA-Required Conclusions.** Discusses growth inducement, unavoidable significant effects, and significant irreversible changes as a result of the proposed project.
- **Chapter 7: Organizations and Persons Consulted.** Lists the people and organizations that were contacted during the preparation of this EIR for the proposed project.
- **Chapter 8: Acronyms and Abbreviations.** Lists the common acronyms and abbreviations in this Draft EIR.
- **Appendices:** The appendices for this document contain the following supporting documents:
 - Appendix A: Notice of Preparation and Scoping Comments
 - Appendix B: Air Quality and Greenhouse Gas Emissions Data
 - Appendix C: Biological Resources Data
 - Appendix D: Cultural Resources Data
 - Appendix E: Hazardous Materials Data
 - Appendix F: Noise Data
 - Appendix G: Public Services Data
 - Appendix H: Energy Data
 - Appendix I: Water Supply Assessment

2.1.2 TYPE AND PURPOSE OF THIS DRAFT EIR

According to Section 15121(a) of the CEQA Guidelines, the purpose of an EIR is to inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

As described in the CEQA Guidelines, different types of EIRs are used for varying situations and intended uses. Because of the long-term planning horizon of the proposed project and the permitting, planning, and development actions that are related both geographically and as logical parts in the chain of contemplated actions for implementation, this Draft EIR has been prepared as a program EIR for the proposed project, pursuant to Section 15168 of the CEQA Guidelines.

Once a program EIR has been certified, subsequent activities within the program must be evaluated to determine whether additional CEQA review needs to be prepared. However, if the program EIR addresses the program’s effects as specifically and comprehensively as possible, subsequent activities could be found to be within the program EIR scope, and additional environmental review may not be required (CEQA Guidelines Section 15168[c]). When a program EIR is relied on for a subsequent activity, the lead agency must incorporate feasible mitigation measures and alternatives developed in the program EIR into

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the subsequent actions (CEQA Guidelines Section 15168[c][3]). If a subsequent activity would have effects that are not within the scope of a program EIR, the lead agency must prepare a new Initial Study leading to a Negative Declaration, a Mitigated Negative Declaration, or an EIR. For these subsequent environmental review documents, this Program EIR will serve as the first-tier environmental analysis.

2.2 SUMMARY OF PROPOSED PROJECT

The proposed project would replace the City's existing General Plan, which has a buildout horizon to 2030, with an updated General Plan and a new Annexation Ordinance. The existing General Plan was prepared in 2009 and included a horizon year of 2030. While this horizon year is still 8 years away, in the years between 2009 and 2022 conditions inside and outside of Los Banos changed, including the economic recovery from the Great Recession, a worsening housing crisis in California, and the COVID-19 pandemic of 2020. A number of State and federal laws guiding General Plan policies have also been updated during this time. As such, there is a need to take stock of the existing situation and plan for sustainable development in line with a vision. The proposed General Plan 2042 focuses on meeting current community requirements and future needs. Accordingly, the City is undertaking a comprehensive update to the General Plan.

The City determined that the current General Plan provided a good foundation for General Plan 2042. The current General Plan included a comprehensive review process, resulting in a broad range of community goals and policies. Many of the community issues vetted in the current General Plan are still relevant, well addressed, and do not require major change. Therefore, the approach to the proposed General Plan 2042 is not a comprehensive update, rather, it builds off of the current General Plan by incorporating the topics that are now required by State mandate and revises relevant policies and programs to meet those requirements. It also incorporates regional forecasts for 2042, thus moving the planning horizon forward by 20 years. Chapter 3, *Project Description*, of this Draft EIR includes a detailed description of the proposed project.

2.3 SUMMARY OF PROJECT ALTERNATIVES

This Draft EIR analyzes alternatives to the proposed project that are designed to reduce the significant environmental impacts of the proposed project and feasibly attain most of the proposed project objectives. There is no set methodology for comparing the alternatives or determining the environmentally superior alternative under CEQA. Identification of the environmentally superior alternative involves weighing and balancing all of the environmental resource areas by the City. The following alternatives to the proposed project were considered and analyzed in detail:

- **Alternative A: No Project (Current General Plan).** Consistent with Section 15126.6(e)(2) of the CEQA Guidelines, Alternative A presents the No Project scenario. Accordingly, under this alternative, the proposed project would not be adopted or implemented, and further development in the city would continue to be subject to existing policies, regulations, development standards, and land use designations under the existing General Plan 2030.

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- **Alternative B: Focused Growth.** Alternative B assumes the same amount of households, residential units, population, and jobs would occur as under the proposed project, but would allow for multi-family housing in the Office/Professional and Employment Campus, land use designations and increase the maximum floor-area ratios (FAR)⁴ in the Neighborhood Commercial, Regional Commercial, Office/Professional, and Employment Campus to 0.75, when compared to the proposed project. In addition, Alternative B would maintain the currently adopted 2004 Sphere of Influence (SOI).

Chapter 5, *Alternatives to the Proposed Project*, of this Draft EIR includes a complete discussion of these alternatives. As discussed in Chapter 5, Alternative B, is the Environmentally Superior Alternative pursuant to CEQA Guidelines Section 15126.6.

2.4 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR identify 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 City of Los Banos, as lead agency, related to:

- Whether this Draft EIR adequately describes the environmental impacts of the proposed project.
- Whether the benefits of the proposed project override those environmental impacts that cannot be feasibly avoided or mitigated to a level of insignificance.
- Whether the proposed land use changes are compatible with the character of the existing area.
- Whether the identified goals, policies, or mitigation measures should be adopted or modified.
- Whether there are other mitigation measures that should be applied to the proposed project besides those mitigation measures identified in the Draft EIR.
- 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 objectives.

2.4 AREAS OF CONTROVERSY

The City issued a Notice of Preparation (NOP) on January 18, 2022. The CEQA-mandated scoping period for this EIR was between January 18, 2022, and February 16, 2022, during which time interested agencies and the public could submit comments about the potential environmental impacts of the proposed project. During this time, the City received comment letters from a variety of State and local agencies as well as several organizations and members of the public. Appendix A, *Notice of Preparation and Scoping*

⁴ FAR is a ratio of the building square footage permitted on a lot to the net square footage of the lot. For example, on a site with 10,000 square feet of net land area, a FAR of 1.0 will allow 10,000 square feet of building floor area to be built.

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Comments, of this Draft EIR contains the NOP as well as the comments received by the City in response to the NOP.

The following is a discussion of issues that are likely to be of particular concern to agencies and interested members of the public during the environmental review process. Though every concern applicable to the CEQA process is addressed in this Draft EIR, this list is not necessarily exhaustive, but rather attempts to capture concerns that are likely to generate the greatest interest based on the input received during the scoping process.

- Conservation of groundwater
- Adequacy of existing water supply and increased water demand
- Water quality impacts
- Adequacy of stormwater drainage infrastructure
- Loss of prime farmland and soils
- Protection of farmland
- Protection of cultural resources and tribal cultural resources
- Protection of biological resources, including wetlands
- Adequate public services and infrastructure to accommodate new growth
- Effects of cumulative development

2.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Table 2-1, *Summary of Significant Impacts and Mitigation Measures* summarizes the conclusions of the environmental analysis in this Draft EIR and presents a summary of the identified significant impacts and the proposed General Plan 2042 policies and actions and the CEQA-required mitigation measures that reduce impacts. As summarized in Table 2-1 below, and as required by CEQA, some impacts remain significant and unavoidable after implementation of General Plan policies and actions and consideration of feasible mitigation. Table 2-1 is organized to correspond with the environmental issues in Chapter 4, *Environmental Analysis*, and its subchapters 4.1 through 4.17. Table 2-1 is arranged in four columns: (1) impact, (2) significance without mitigation, (3) mitigation measures, and (4) significance with mitigation. All environmental topics not listed in this table were found to have less-than-significant impacts without mitigation. For a complete description of potential impacts, please refer to the specific discussions in Chapter 4, *Environmental Analysis*, and its subchapters 4.1 through 4.17.

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TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation
4.2 AGRICULTURAL RESOURCES (AG)			
AG-1: Implementation of the General Plan 2042 would result in the conversion of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland land to non-agricultural land uses.	Significant and unavoidable	<p>Land Use (LU): LU-P1.2, LU-P1.3, LU-P1.4, LU-P1.9, LU-A1.4, LU-3.1, LU-P4.5, LU-P6.4, LU-A6.3, P-A5.1, P-P7.1, P-P7.2, P-P7.3, P-P7.4, P-P7.6, P-A7.1, and P-A7.2.</p> <p>Public Facilities and Services (PFS): PFS-P3.6</p> <p>Mitigation Considered but Found to be Infeasible: Replacement of Agricultural Lands, Transfer of Development Rights, and Relocation of Prime Farmland Topsoil. See Chapter 4.2 for a detailed discussion.</p> <p>As discussed in Chapter 4.2, implementation of the proposed project would designate Prime Farmland, Farmland of Statewide Importance, or Unique Farmland land to non-agricultural land uses. Through General Plan 2042 policies and actions, and mandatory mitigation measures, impacts related to the conversion of qualifying agricultural lands would be reduced but not to a less-than-significant level. The proposed General Plan 2042 contains policies and actions to reduce the conversion of qualifying agricultural lands, such as Policy P-P7.3 that requires the City to support agricultural conservation easement programs managed by other public, private, and non-profit organizations, Policy P-P7.6 that requires applicants of annexation proposals that would result in the conversion of 50 or more acres to prepare inventories of vacant land that could serve the same purpose, and Actions P-A7.1 and P-A7.2 that require the City to explore feasible and implementable policies and mitigation measures to address impacts to agricultural lands and establish specific overlay zones to maintain existing agricultural lands, respectively. These policies and actions would not reduce the amount of acreage converted under buildout of the proposed General Plan 2042; however, they would forestall development of the best agricultural land within the City's SOI. While these efforts and other mitigation measures were considered, such as preserving agricultural uses in the EIR Study Area, replacement of agricultural resources by replacing lost agricultural uses to other areas of the city, and relocation of Prime Farmland topsoil to other areas, these mitigations are not feasible. Additionally, other mitigating efforts, such as conservation easements, one-to-one preservation, and right-to-farm ordinances all work to mitigate impacts; however, the only way to fully avoid the agricultural impact from implementation of the proposed</p>	Significant and unavoidable

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TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation
		General Plan is to not allow development on state-designated Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, thereby eliminating the agricultural impact. However, doing so is not feasible or practical as the City has a responsibility to meet other conflicting obligations, including increases in the number and type of jobs available in Los Banos and to reduce the need for residents to commute to high-quality jobs. These measures are critical to reducing single-occupant vehicle travel to and from Los Banos and meeting State targets for greenhouse gas reduction. The City needs to promote both economic development and corresponding residential development, as required by State housing law, within its adopted growth boundary. While possible forms of mitigation for, or avoidance of, conservation of agricultural lands in the EIR Study Area would be implemented by the City through its General Plan policies and actions, doing so to reduce impacts to a less-than-significant level would be infeasible and inconsistent with City planning goals and objectives. Therefore, impacts would remain <i>significant and unavoidable</i> .	
AG-2: Implementation of the General Plan 2042 would result in the loss of agricultural land under the Williamson Act.	Significant and unavoidable	<p>Land Use (LU): LU-P1.2, LU-P1.3, LU-P1.4, LU-P1.9, LU-A1.4, LU-3.1, LU-P4.5, LU-P6.4, LU-A6.3, P-A5.1, P-P7.1, P-P7.2, P-P7.3, P-P7.4, P-P7.6, P-A7.1, and P-A7.2.</p> <p>Public Facilities and Services (PFS): PFS-P3.6</p> <p>Mitigation Considered but Found to be Infeasible: Replacement of Agricultural Lands, Transfer of Development Rights, and Relocation of Prime Farmland Topsoil. See Chapter 4.2 for a detailed discussion.</p> <p>As described in Chapter 4.2 and in impact AG-1 above, the proposed General Plan 2042 includes policies and actions to minimize impacts to agricultural lands. Those same General Plan policies and actions would also minimize impacts from conflicts with Williamson Act lands and reduce the likelihood of premature contract cancellations by the property owners of the Williamson Act parcels in the EIR Study Area. Mitigation for this impact was considered, including the placement of other farmland under Williamson Act contract. However, the individual and cumulative loss of agricultural land under the Williamson Act caused by the proposed project would still occur. Given that CEQA does not require that the project be changed to avoid an impact, and</p>	Significant and unavoidable

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TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation
		no additional mitigation is available, this would result in a <i>significant and unavoidable</i> impact.	
AG-4: The General Plan 2042, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to the conversion of farmland of concern under CEQA and Williamson Act properties to non-agricultural uses.	Significant and unavoidable	<p>Land Use (LU): LU-P1.2, LU-P1.3, LU-P1.4, LU-P1.9, LU-A1.4, LU-3.1, LU-P4.5, LU-P6.4, LU-A6.3, P-A5.1, P-P7.1, P-P7.2, P-P7.3, P-P7.4, P-P7.6, P-A7.1, and P-A7.2.</p> <p>Public Facilities and Services (PFS): PFS-P3.6</p> <p>Mitigation Considered but Found to be Infeasible: Replacement of Agricultural Lands, Transfer of Development Rights, and Relocation of Prime Farmland Topsoil. See Chapter 4.2 for a detailed discussion.</p> <p>As described in Chapter 4.2, implementation of the proposed project would result in significant impacts related to the conversion of farmland of concern under CEQA and Williamson Act properties to non-agricultural uses. As such, the proposed project would contribute to the cumulative impact described in the Merced County General Plan EIR. Although the goals, policies, and actions in the General Plan 2042 would reduce and partially offset regional agricultural impacts, as well as consideration of mitigation measures to preserve agricultural lands, the only way to fully avoid the agricultural impact of the proposed General Plan is to not allow development on state-designated farmland, thereby eliminating the agricultural impact. However, this would be infeasible and inconsistent with City planning goals and objectives. Further, the amount of growth foreseen in the region and the decisions of Merced County and other surrounding counties regarding conversion of agricultural land are outside the control of the City of Los Banos. Therefore, this impact would be <i>significant and unavoidable</i>.</p>	Significant and unavoidable
4.3 AIR QUALITY (AIR)			
AIR-1: Implementation of the General Plan 2042 would result in the generation of substantial operational (long-term) criteria air pollutant emissions that would exceed the San Joaquin Valley Unified Air Pollution Control District regional significance thresholds and would therefore not be considered consistent with the existing Air Quality Management Plans.	Significant	MM AIR-1: Implement Mitigation Measures AIR-2a and AIR-2b.	Significant and unavoidable
	Significant	Land Use (LU): LU-P4.8	

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TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation
AIR-2a: Operation of development projects that could occur from implementation of the General Plan 2042 would generate emissions that would exceed the San Joaquin Valley Unified Air Pollution Control District regional significance thresholds for volatile organic compounds (VOC), nitrogen oxides (NO _x), and carbon monoxide (CO).		Circulation (C): C-P2.6, C-P3.2, C-P3.3, C-P4.1, C-P4.6, and C-P7.2	Significant and unavoidable
		Parks, Open Space, and Conservation (P): P-P11.1, P-P11.2, P-P11.4, P-P11.5, P-P11.7, P-P11.8, P-A11.1, P-A11.2, P-P12.1, P-P12.2, and P-P12.3	
		<p>MM AIR-2a: Prior to discretionary approval by the City for development projects subject to California Environmental Quality Act (CEQA) review (i.e., non-exempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation phase-related air quality impacts to the City of Los Banos for review and approval. The evaluation shall be prepared in conformance with San Joaquin Valley Unified Air Pollution Control District (SJVAPCD) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the SJVAPCD-adopted thresholds of significance, as identified in the <i>Guidance for Assessing and Mitigating Air Quality Impacts</i>, the City of Los Banos Planning and Engineering Division shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval. Possible mitigation measures to reduce operational (long-term) emissions can include, but are not limited to the following:</p> <ul style="list-style-type: none"> For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions. Applicants for manufacturing and light industrial uses shall consider energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use. Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with Section 2485 of 13 California Code of Regulations Chapter 10. 	

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TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation
		<ul style="list-style-type: none"> Provide changing/shower facilities as specified, at minimum, or greater than in the guidelines of the Nonresidential Voluntary Measures of the California Green Building Standards Code (CALGreen located in Part 11 of Title 24). Provide bicycle parking facilities equivalent to or greater than as specified in the Residential Voluntary Measures of CALGreen. Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles equivalent to or greater the Nonresidential Voluntary Measures of CALGreen. Provide facilities to support electric charging stations per the Nonresidential Voluntary Measures and the Residential Voluntary Measures of CALGreen. Applicant-provided appliances shall be Energy Star-certified appliances or appliances of equivalent energy efficiency (e.g., dishwashers, refrigerators, clothes washers, and dryers). Installation of Energy Star-certified or equivalent appliances shall be verified by the City during plan check. Applicants for future development projects along existing and planned transit routes shall coordinate with the Los Banos and the Merced Transit Authority to ensure that bus pad and shelter improvements are incorporated, as appropriate. Applicants for future development projects shall 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. 	
AIR-2b: Construction activities associated with buildout of the General Plan 2042 would generate substantial short-term criteria air pollutant emissions that would exceed the San Joaquin Valley Unified Air Pollution Control District regional significance thresholds and cumulative contribute to the nonattainment designations of the San Joaquin Valley Air Basin.	Significant	Parks, Open Space, and Conservation (P): P-P11.6	Significant and unavoidable

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TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation
		<p>MM 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 Los Banos 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 Los Banos 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 Los Banos. Mitigation measures to reduce construction-related emissions could include, but are not limited to:</p> <ul style="list-style-type: none"> ▪ 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. 	

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TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation
		<ul style="list-style-type: none"> ▪ 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: <ul style="list-style-type: none"> ▪ 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. ▪ 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. 	

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TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation
		<ul style="list-style-type: none"> 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. 	
AIR-3a: Implementation of the General Plan 2042 could expose air quality sensitive receptors to substantial toxic air contaminant concentrations from non-permitted sources during operation.	Significant	<p>Parks, Open Space, and Conservation (P): P-P13.1, P-P13.2, P-P13.3, P-P13.4, P-P13.1, and P-P13.7</p> <hr/> <p>MM AIR-3a: Prior to discretionary approval by the City of Los Banos for development projects subject to California Environmental Quality Act (CEQA) review (i.e., non-exempt projects), applicants for industrial or warehousing land uses in addition to 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 based on the California Air Resources Board recommendations for siting new sensitive land uses) shall prepare an operational health risk assessment (HRA) to the City of Los Banos for review and approval. If the operational health risk assessment determines the new development poses health hazards that increase the incremental cancer risk above the threshold established by the San Joaquin Valley Unified Air Pollution Control District (SJVAPCD), project-specific mitigation measures shall be integrated to reduce cancer and acute risk below the SJVAPCD threshold.</p> <p>The operational HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and the SJVAPCD. If the operational HRA shows that the incremental cancer risk exceeds 20 in a million, the appropriate noncancer hazard index exceeds 1.0; or the thresholds as determined by the SJVAPCD at the time a project is considered, the project applicant will be required to identify and demonstrate that measures are capable of reducing potential cancer and</p>	Significant and unavoidable

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TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation
		<p>noncancer risks to an acceptable level, including appropriate enforcement mechanisms.</p> <p>Measures to reduce risk impacts may include but are not limited to:</p> <ul style="list-style-type: none"> ▪ Restricting idling onsite beyond Air Toxic Control Measures idling restrictions, as feasible. ▪ Electrifying warehousing docks. ▪ Requiring use of newer equipment and/or vehicles. ▪ Restricting offsite truck travel through the creation of truck routes. <p>The operational HRA shall be submitted to the City of Los Banos. Measures identified in the operational HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the proposed project.</p>	
AIR-3b: Construction activities associated with potential future development from implementation of the General Plan 2042 could expose nearby air quality sensitive receptors to substantial concentrations of toxic air contaminants during construction.	Significant	MM AIR-3b: Implement Mitigation Measure AIR-2b.	Significant and unavoidable
AIR-4: Operation of new industrial land uses accommodated under the proposed General Plan 2042 has the potential to create objectionable odors that could affect a substantial number of people.	Significant	<p>MM AIR-4: Prior to project approval, if it is determined during project-level environmental review that a project has the potential to emit nuisance odors beyond the property line, an Odor Management Plan shall be prepared and submitted by the project applicant prior to project approval to ensure compliance with San Joaquin Valley Unified Air Pollution Control District Rule 4102. The following facilities that are within the buffer distances specified from sensitive receptors (in parentheses) have the potential to generate substantial odors:</p> <ul style="list-style-type: none"> ▪ Wastewater Treatment Plan (2 miles) ▪ Sanitary Landfill (1 mile) ▪ Transfer Station (1 mile) ▪ Composting Facility (1 mile) ▪ Petroleum Refinery (2 miles) 	Less than significant

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TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation
		<ul style="list-style-type: none"> Asphalt Batch Plant (1 mile) Chemical Manufacturing (1 mile) Fiberglass Manufacturing (1 mile) Painting/Coating Operations (1 mile) Food Processing Facility (1 mile) Feed Lot/ Dairy (1 mile) Rendering Plant (1 mile) <p>The Odor Management Plan shall be submitted to the City of Los Banos. The Odor Management Plan prepared for these facilities shall identify control technologies that will be utilized to reduce potential odors to acceptable levels, including appropriate enforcement mechanisms. Control technologies may include but are not limited to scrubbers (e.g., air pollution control devices) at an industrial facility. Control technologies identified in the odor management plan shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.</p>	
AIR-5: Implementation of the General Plan 2042 would generate a substantial increase in emissions that exceeds the San Joaquin Valley Unified Air Pollution Control District significance thresholds and would cumulatively contribute to the nonattainment designations and health risk in the San Joaquin Valley Air Basin.	Significant	<p>Land Use (LU): LU-P4.8</p> <p>Circulation (C): C-P2.6, C-P3.2, C-P3.3, C-P4.1, C-P4.6, and C-P7.2</p> <p>Parks, Open Space, and Conservation (P): P-P11.1, P-P11.2, P-P11.4, P-P11.5, P-P11.7, P-P11.8, P-A11.1, P-A11.2, P-P12.1, P-P12.2, and P-P12.3</p> <p>MM AIR-5: Implement Mitigation Measures AIR-2a, AIR-2b, AIR-3a, AIR-3b, and AIR-4</p>	Significant and unavoidable
4.8 GREENHOUSE GAS EMISSIONS (GHG)			
GHG-1: Implementation of the General Plan 2042 would not meet the long-term greenhouse gas emissions reduction goal under Executive Order (EO) S-03-05 or substantial progress toward carbon neutrality goals under EO B-55-18.	Significant	<p>Economic Development (ED): ED-P1.1, ED-A1.1, ED-A2.1, ED-A2.2, and ED-A2.3</p> <p>Land Use (LU): LU-P1.1, LU-P1.3, LU-P2.11, LU-P2.15, LU-P4.8, LU-P5.2, LU-P5.3, LU-P5.6, and LU-P5.7</p> <p>Parks, Open Space, and Conservation (P): P-P12.1, P-P12.2, P-P12.3, P-P12.4, P-P12.5, P-P13.1, P-P13.2, P-P13.3, P-P13.4, P-P13.5, P-P13.6, P-P13.7, and P-A13.1</p>	Significant and unavoidable

EXECUTIVE SUMMARY

TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation
		<p>Circulation (C): C-P1.1, C-P1.2, C-P1.3, C-A1.3, C-P2.5, C-P2.6, C-P2.8, C-A2.1, C-A2.2, C-P3.1, C-P3.2, C-P3.3, C-A3.1, C-P4.1, C-P4.2, C-P4.3, C-P4.4, C-P4.5, C-P4.6, C-P4.7, C-P4.8, C-P4.9, C-P7.1, C-P7.2, C-P7.4, and C-P7.5</p> <p>MM GHG-1: The City of Los Banos shall prepare a Climate Action Plan (CAP) to achieve the GHG reduction targets of Senate Bill 32 for year 2030. The CAP shall be completed within 24 months of certification of the General Plan EIR. The CAP shall be updated every five years to ensure the City is monitoring the plan's progress toward achieving the City's greenhouse gas (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 Executive Order (EO) S-03-05 for year 2050 and the latest applicable statewide legislative GHG emission reduction that may be in effect at the time of the CAP update (e.g., Senate Bill 32 for year 2030). 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 Senate Bill 32 for year 2030. ▪ Tools and strategies for reducing GHG emissions to ensure a trajectory with the long-term GHG reduction goal of Executive Order S-03-05. ▪ Plan implementation guidance that includes, at minimum, the following components consistent with the proposed CAP: <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 	
GHG-3: Implementation of the General Plan 2042 would not meet the long-term greenhouse gas emission reduction goal under Executive Order (EO) S-03-05 or	Significant	<p>Economic Development (ED): ED-P1.1, ED-A1.1, ED-A2.1, ED-A2.2, and ED-A2.3</p> <p>Land Use (LU): LU-P1.1, LU-P1.3, LU-P2.11, LU-P2.15, LU-P4.8, LU-P5.2, LU-P5.3, LU-P5.6, and LU-P5.7</p>	Significant and unavoidable

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TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation
substantial progress toward carbon neutrality goals under EO B-55-18.		<p>Parks, Open Space, and Conservation (P): P-P12.1, P-P12.2, P-P12.3, P-P12.4, P-P12.5, P-P13.1, P-P13.2, P-P13.3, P-P13.4, P-P13.5, P-P13.6, P-P13.7, and P-A13.1</p> <p>Circulation (C): C-P1.1, C-P1.2, C-P1.3, C-A1.3, C-P2.5, C-P2.6, C-P2.8, C-A2.1, C-A2.2, C-P3.1, C-P3.2, C-P3.3, C-A3.1, C-P4.1, C-P4.2, C-P4.3, C-P4.4, C-P4.5, C-P4.6, C-P4.7, C-P4.8, C-P4.9, C-P7.1, C-P7.2, C-P7.4, and C-P7.5</p> <p>MM GHG-3: Implement Mitigation Measure GHG-1.</p>	
4.12 NOISE (NOI)			
NOI-1a: Construction activities associated with potential future development projects from implementation of the General Plan 2042 could expose noise sensitive receptors in close proximity to a construction site to construction noise that exceeds 80 a-weighted decibel (dBA) equivalent continuous noise level over an 8-hour period ($L_{eq(8hr)}$)	Significant	<p>Safety and Noise (S): S-P8.5, S-P8.6, and S-A8.3</p> <p>As discussed in Chapter 4.12, implementation of the General Plan 2042 Action S-A8.3 would ensure that construction noise impacts are reduced to the degree feasible. Because construction activities associated with any individual development may occur near noise-sensitive receptors and because, depending on the project type, equipment list, time of day, phasing and overall construction durations, noise disturbances may occur for prolonged periods of time, during the more sensitive nighttime hours, or may exceed 80 dBA $L_{eq(8hr)}$ even with project-level mitigation, construction noise impacts associated with implementation of the proposed project are considered <i>significant and unavoidable</i>.</p>	Significant and unavoidable
NOI-1b: Implementation of the General Plan 2042 traffic noise level increases of up to 2.6 a-weighted decibel (dBA) community noise equivalent level (CNEL) are estimated along State Route 152 between Badger Flat Road and Ortigalita Road which would exceed the City's 1.5 dBA increase threshold.	Significant	<p>Safety and Noise (S): S-P8.3, S-P8.4, and S-A8.1</p> <p>MM NOI-1b: The City of Los Banos shall work with the California Department of Transportation (Caltrans) and request that Caltrans install "quiet pavement" materials to reduce traffic noise levels to below the City's 1.5 dBA increase threshold along State Route 152 between Badger Flat Road and Ortigalita Road.</p>	Significant and unavoidable
NOI-2a: Construction activities associated with potential future development projects from implementation of the General Plan 2042 could generate excessive short-term vibration levels during project construction resulting in human annoyance or building damage.	Significant	<p>MM NOI-2a: Prior to issuance of a building permit for a project requiring pile driving during construction that is within 135 feet of fragile structures such as older or historical resources, 100 feet of non-engineered timber and masonry buildings (e.g., most residential buildings), or within 75 feet of engineered concrete and masonry (no plaster); or a vibratory roller within 25 feet of any structure, the project applicant shall prepare a noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these activities. This noise and vibration analysis shall be conducted by a qualified</p>	Less than significant

EXECUTIVE SUMMARY

TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation
		and experienced acoustical consultant or engineer. The vibration levels shall not exceed Federal Transit Administration (FTA) architectural damage thresholds (e.g., 0.12 inches per second (in/sec) peak particle velocity (PPV) for fragile or historical resources, 0.2 in/sec PPV for non-engineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). If vibration levels would exceed these thresholds, alternative uses such as drilling piles as opposed to pile driving and static rollers as opposed to vibratory rollers shall be used. If necessary, construction vibration monitoring shall be conducted to ensure vibration thresholds are not exceeded.	
NOI-2b: The operation of future projects with implementation of the General Plan 2042 could generate excessive long-term vibration levels.	Significant	MM NOI-2b: During the project-level process for industrial developments or other projects that could generate substantial vibration levels near sensitive uses, a noise and vibration analysis shall be conducted to assess and mitigate potential noise and vibration impacts related to the operations of that individual development. This noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer and shall follow the latest California Environmental Quality Act guidelines, practices, and precedents.	Less than significant
NOI-4a: The General Plan 2042, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to construction noise.	Significant	Safety and Noise (S): S-P8.5, S-P8.6, and S-A8.3 As described in Chapter 4.12 in impact discussion NOI-1, because construction activities associated with any individual development may occur near noise-sensitive receptors and because, depending on the project type, equipment list, time of day, phasing and overall construction durations, noise disturbances may occur for prolonged periods of time, during the more sensitive nighttime hours, or may exceed 80 dBA $L_{eq(8hr)}$ even with project-level mitigation, cumulative construction noise impacts associated with implementation of the proposed General Plan 2042 are considered <i>significant and unavoidable</i> at the program level.	Significant and unavoidable
NOI-4b: The General Plan 2042, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to roadway noise on State Route 152 between Badger Flat Road and Ortigalita Road.	Significant	Safety and Noise (S): S-P8.3, S-P8.4, and S-A8.1 MM NOI-4b: Implement Mitigation Measure NOI-1b.	Significant and unavoidable

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TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation	
4.15 Transportation (TRAN)				
TRAN-2: Implementation of the General Plan 2042 would result in a significant vehicle mile traveled (VMT) impact for VMT per service population due to forecast land use growth through 2042, based on a comparison of the VMT rate increment for VMT per service population to the corresponding average baseline rates for the Merced County region.	Significant	Economic Development (ED): ED-P1.1, ED-A1.1, ED-A2.1, ED-A2.2, and ED-A2.3	Significant and unavoidable	
		Land Use (LU): LU-P1.1, LU-P1.3, LU-P2.11, LU-P2.15, LU-P5.2, LU-P5.3, LU-P5.6, and LU-P5.7		
		Circulation (C): C-P1.1, C-P1.2, C-P1.3, C-A1.3, C-P2.5, C-P2.6, C-P2.8, C-A2.1, C-A2.2, C-P3.1, C-P3.2, C-P3.3, C-A3.1, C-P4.1, C-P4.2, C-P4.3, C-P4.4, C-P4.5, C-P4.6, C-P4.7, C-P4.8, C-P4.9, C-P7.1, C-P7.2, C-P7.4, and C-P7.5		
		<p>As discussed in Chapter 4.15, implementation of the General Plan 2042 policies and actions would ensure that VMT are reduced to the degree feasible. Policy C-P2.5 requires the City to achieve State-mandated VMT reductions by requiring development and transportation projects to meet specific VMT metrics at the project level, and in the event a proposed project does not meet these metrics, require measures to reduce the additional VMT associated with the project, consistent with City’s adopted thresholds. Policy C-P2-6 requires the City to reduce VMT by pursuing improvements to public transportation and carpooling and offering safe routes for pedestrians and bicyclists. Action C-A2.1 requires the City to participate in regional efforts to develop guidelines for calculating the projected VMT associated with future development projects and transportation improvements. The guidelines also should cover administration, screening criteria, and appropriate Transportation Demand Management measures and monitoring procedures, and routinely reassessed and revised as needed to reflect changing conditions. Action C-A2.2 requires the City to reduce VMT and the City shall study the feasibility of a Trip Reduction Ordinance to support achievement of the VMT reduction standard that reflects General Plan 2042 Policy C-P2.5. In addition, as listed in impact discussion TRAN-1, the City has numerous policies to promote safe and user-friendly transit and improve the bicycle and pedestrian network in Los Banos, all which would serve to promote alternative forms of transportation and reduce VMT.</p>		
		<p>Impacts for VMT per service population are considered significant and unavoidable. This is because even with the proposed General Plan 2042 policies and action, the City of Los Banos may not achieve the overall VMT</p>		

EXECUTIVE SUMMARY

TABLE 2-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	General Plan Policies (P) and Actions (A) and CEQA-Required Mitigation Measures (MM)	Significance with Mitigation
		threshold reduction level as the effectiveness of VMT reductions strategies is not certain. This program-level land use impact for VMT per service population does not preclude the finding of less-than-significant impacts for subsequent development projects that achieve applicable VMT thresholds of significance. However, due to the programmatic nature of the proposed project, no additional mitigation measures are available, and the impact is considered <i>significant and unavoidable</i> .	
TRAN-5: Implementation of the General Plan 2042 would cumulatively contribute to regional VMT.	Significant	<p>Economic Development (ED): ED-P1.1, ED-A1.1, ED-A2.1, ED-A2.2, and ED-A2.3</p> <p>Land Use (LU): LU-P1.1, LU-P1.3, LU-P2.11, LU-P2.15, LU-P5.2, LU-P5.3, LU-P5.6, and LU-P5.7</p> <p>Circulation (C): C-P1.1, C-P1.2, C-P1.3, C-A1.3, C-P2.5, C-P2.6, C-P2.8, C-A2.1, C-A2.2, C-P3.1, C-P3.2, C-P3.3, C-A3.1, C-P4.1, C-P4.2, C-P4.3, C-P4.4, C-P4.5, C-P4.6, C-P4.7, C-P4.8, C-P4.9, C-P7.1, C-P7.2, C-P7.4, and C-P7.5</p> <p>Even with the General Plan policies and actions described in impact TRAN-2 listed above, the City of Los Banos may not be able to achieve the VMT rate reductions specified in Policy C-P2.5 and the effectiveness of VMT reduction strategies is not certain. As such, the cumulative impact on VMT with mitigation is considered <i>significant and unavoidable</i>.</p>	Significant and unavoidable

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3. *Project Description*

This chapter of the Draft Environmental Impact Report (EIR) describes the proposed update to the Los Banos General Plan (General Plan 2042) and the Los Banos Municipal Code (LBMC) to include the addition of the proposed Annexation Ordinance, hereinafter referred to as the “proposed project.”

The Draft EIR has been completed in accordance with the California Environmental Quality Act (CEQA). CEQA requires that State and local public agencies analyze proposed projects to determine potential impacts on the environment and disclose any such impacts.¹ As described in more detail in Chapter 1, Introduction, of this Draft EIR, consistent with CEQA Guidelines Section 15168, this Draft EIR provides a programmatic analysis of the environmental impacts associated with implementation of the proposed project, including the projected buildout of the General Plan. This Draft EIR is also intended to be used for purposes of tiering, pursuant to CEQA Guidelines Section 15152 and other tiering and streamlining provisions of CEQA and the CEQA Guidelines. The City of Los Banos (City) is the lead agency for the environmental review of the proposed project.

3.1 BACKGROUND

Every city and county in California is required to have an adopted comprehensive long-range general plan for the physical development of the county or city and, in some cases, land outside the city or county boundaries.² It is the community’s overarching policy document that defines a vision for future change and sets the “ground rules” for: locating and designing new projects that enhance the character of the community, expanding the local economy, conserving and preserving environmental resources, improving public services and safety, minimizing hazards, and fostering community health. The General Plan, which includes a vision, guiding principles, goals, policies, and actions, functions as the City’s primary land use regulatory tool. It provides a basis for judging whether specific development proposals and public projects are in harmony with General Plan policies. It is the constitution for future change in Los Banos.

Pursuant to State law, a general plan must contain eight mandated elements: land use, circulation, housing, conservation, open space, noise, environmental justice, and safety. Typically, general plans cover a time frame or forecast of 15 to 20 years. However, general plan housing elements are required to be updated every eight years to comply with the Regional Housing Needs Allocation (RHNA).

The City’s General Plan Land Use Map is integrated with the City’s Zoning Map, which shows the parcel-specific delineation of the zoning districts throughout the city and depicts permitted and conditionally permitted uses. A parcel’s zoning district stems directly from its General Plan Land Use designation, with

¹ CEQA Guidelines, Section 15002(a).

² California Government Code Section 65300.

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the zoning district acting to implement the General Plan by refining the specific uses and development standards for that parcel.

All specific plans, master plans, and zoning in the city must be consistent with the General Plan. Similarly, the General Plan must be used as the basis for all planning-related decisions made by City staff, the Planning Commission, and the City Council. Other decision-making bodies that rely on the General Plan to guide future decisions include the Airport Advisory Commission, Cultural Heritage Commission, Parks and Recreation Commission, Public Works Department, and the Traffic and Safety Committee. The General Plan itself, however, does not approve or entitle any development project. Future project applicants have control over when they wish to propose a project, and final development approval decisions are made on a project-by-project basis by City staff, the Planning Commission, and/or the City Council.

3.2 OVERVIEW

The existing General Plan was adopted in 2009 and included a horizon year of 2030. While this horizon year is still 8 years away, in the years between 2009 and 2022 conditions inside and outside of Los Banos changed, including the economic recovery from the Great Recession, a worsening housing crisis in California, and the COVID-19 pandemic of 2020. A number of State and federal laws guiding general plan policies have also been updated during this time. As such, there is a need to take stock of the existing situation and plan for sustainable development in line with a vision. The proposed General Plan 2042 focuses on meeting current community requirements and future needs. Accordingly, the City is undertaking a comprehensive update to the General Plan.

The proposed General Plan 2042 guides the city's economic and physical growth as well as preservation of natural and agricultural resources over a 20-year buildout horizon and replaces the City's existing General Plan, with the exception of the Housing Element. The City's Housing Element (2014 to 2023) was adopted in July 2016 and is incorporated into the proposed General Plan 2042 by reference. The Housing Element has already undergone separate environmental review as part of its adoption process; however, the residential development that could occur under the Housing Element is incorporated into the residential development analyzed as part of this EIR.

The proposed General Plan 2042, including the goals, policies, and actions, would require map and text amendments to the General Plan Land Use Map. In conjunction with these General Plan amendments, Title 9, *Planning and Zoning*, of the LBMC would be amended for consistency with the proposed General Plan 2042. While most of the amendments to the LBMC would occur in the future through a separate process, the proposed project includes an amendment to adopt an Annexation Ordinance. The proposed General Plan 2042 and Annexation Ordinance are discussed in detail in Section 3.7.1, *General Plan 2042*, and Section 3.7.2, *Annexation Ordinance*, respectively.

3.3 LOCATION AND SETTING

Los Banos is in the center of California. The city is in the western part of Merced County, which is in the northern portion of the San Joaquin Valley. Los Banos is the second-largest city in Merced County and is closest to the unincorporated communities of Volta and Santa Nella and the incorporated cities of Dos Palos and Gustine. State and federal wildlife areas and refuges in the vicinity include the Volta State Wildlife Area to the northwest, the Los Banos Wildlife Area to the northeast, and the Mud Slough Wildlife Area to the east. Additionally, the San Luis Reservoir State Recreation Area is to the west and the Grassland Ecological Area is to the east. See Figure 3-1, *Regional and Vicinity Map*.

The city is near the junction of California State Route (SR-) 152 and Interstate 5 (I-5), approximately 120 miles southeast of San Francisco, 83 miles northeast of Monterey, and 72 miles northwest of Fresno. Regional access is provided by SR-152 and SR-165 on the west and north. Public transit in Los Banos is currently served by a limited bus transit system served by the Merced County Transit (MCT), which provides transit services throughout Merced County, and a local transit service, called “The Bus,” which provides a connector route to the city of Merced. Residents of and visitors to Los Banos also navigate the city by a variety of arterial, collector, and residential streets, as well as regional and local pedestrian and bicycle routes.

3.4 PLANNING BOUNDARIES AND EIR STUDY AREA

This section explains the planning boundaries referenced in the General Plan and their relationship to the EIR Study Area. The State of California encourages cities to look beyond their borders when undertaking the sort of comprehensive planning required of a general plan. Under State law, the City can establish a Planning Area that consists of land within the city and, “any land outside its boundaries which, in the planning agency’s judgment, bears relation to its planning.”³ The Los Banos Planning Area encompasses approximately 22,600 acres (35 square miles), and includes the lands within the city limit, the Urban Growth Boundary (UGB), the Sphere of Influence (SOI), and the Area of Interest (AOI). A description of these planning boundaries as proposed for General Plan 2042 is provided in the following sections and shown on Figure 3-2, *General Plan 2042 Planning Boundaries*. A comparison of existing boundaries and proposed changes is provided in Section 3.7.1.2, *Planning Boundary Changes*.

³ Government Code, Title 7, *Planning and Land Use*, Division 1, *Planning and Zoning*, Chapter 3, *Local Planning*, Article 5, *Authority for and Scope of General Plans*, Section 65300.

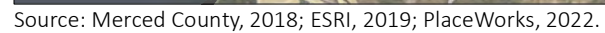
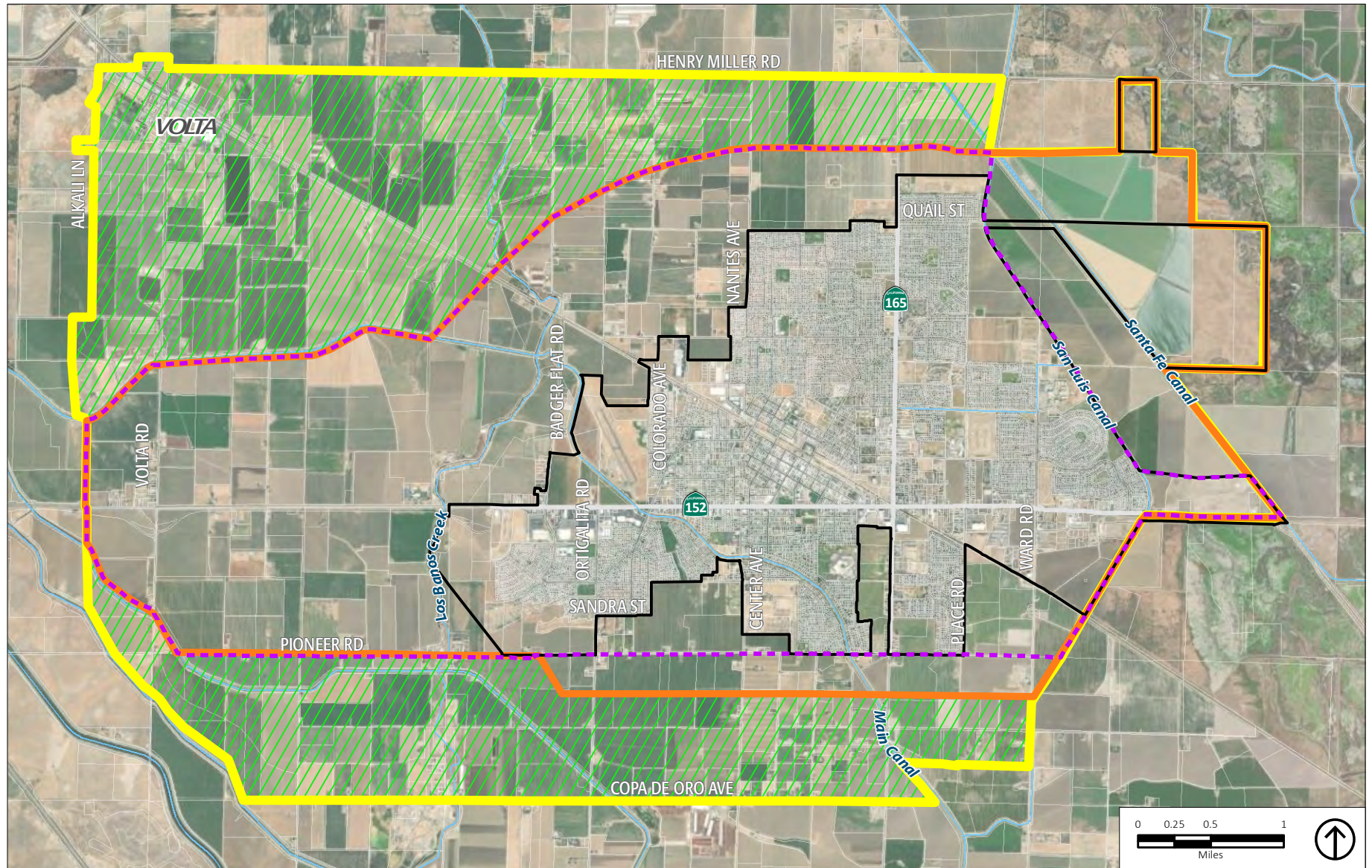


Figure 3-1
Regional and Vicinity Map

PROJECT DESCRIPTION



Source: Merced County, 2019; PlaceWorks, 2022.

- City Limit
- Proposed Urban Growth Boundary (UGB)
- Proposed Area of Interest (AOI)
- Planning Area
- Proposed Sphere of Influence (SOI)

Figure 3-2
General Plan 2042 Planning Boundaries

PROJECT DESCRIPTION

3.4.1 PLANNING BOUNDARIES

3.4.1.1 CITY LIMIT

The city limit boundary encloses the incorporated territory where the City currently has jurisdictional authority. The city limit extends below Henry Miller Road to the north, is generally bound by agricultural lands and canals to the east and west and extends to Pioneer Road to the south. The land outside the city limits is in unincorporated Merced County. Changes to the city limits are made when the City annexes new land that is currently part of Merced County. Annexations must go through a specific legal process that requires input from residents or property owners and are subject to the Local Agency Formation Commission (LAFCO) of Merced County (Merced LAFCO) review and approval. No changes to the city limit are proposed as part of this project.

3.4.1.2 URBAN GROWTH BOUNDARY

The UGB is created and solely defined by the City and represents land that the City anticipates for future annexation within the next 20 years. The purpose of the UGB is to direct growth in a focused, compact way to protect surrounding agricultural and open space land. Prior to urbanization, large-parcel uses, including farming, are encouraged on land inside the UGB but outside the city limit. The City Council can adopt changes to the UGB, if it makes certain findings set forth in the General Plan, without a required vote of the people or Merced LAFCO approval. Changes to the UGB are proposed as part of this project and discussed in more detail in Section 3.7.1.2, *Planning Boundary Changes*.

3.4.1.3 SPHERE OF INFLUENCE

The SOI is defined and determined by the Merced LAFCO, although the City can propose the area that it would like its SOI to include. The current Los Banos SOI was approved by the Merced LAFCO in 2004. The SOI shown in the current General Plan was never formally approved or denied by Merced LAFCO. The SOI is considered the City's ultimate potential area for future annexation and provision of City services. Establishment of this boundary is necessary to determine which governmental agencies can provide services in the most efficient way to the people and property in the area. If land within the City's SOI is annexed by the City in the future, it would then be within the city limits and under the jurisdiction of Los Banos at that time. Changes to the SOI are proposed as part of this project and discussed in more detail in Section 3.7.1.2, *Planning Boundary Changes*; however, no lands are proposed for annexation into the city limit as part of the proposed project.

3.4.1.4 AREA OF INTEREST

Merced LAFCO policies define a concept called the "Area of Interest" (AOI) to support cities and Merced County to engage in coordinated planning. An AOI covers areas outside the SOI boundary, agreed to by the City, Merced County, and/or urban service districts (if applicable), where development may impact City planning efforts. The AOI is not considered for urban development or annexation by the City within the 20-year planning horizon of the General Plan 2042, but rather the City believes these areas bear a relationship to its planning and that the Los Banos community should be able to participate with other relevant agencies in planning decisions within the AOI. The addition of the AOI boundaries on the 2042

PROJECT DESCRIPTION

General Plan Land Use Map is proposed as part of this project and discussed in more detail in Section 3.7.1.2, *Planning Boundary Changes*.

3.4.2 EIR STUDY AREA

As shown in Table 3-1, *EIR Study Area*, the EIR Study Area includes all land within the city limit and the proposed UGB and SOI. The AOI is not in the EIR Study Area because, as stated, the City does not foresee future annexations of these unincorporated areas. The EIR Study Area is shown on Figure 3-3, *EIR Study Area*.

TABLE 3-1 EIR STUDY AREA

Planning Boundaries	Size	
	Acres	Square Miles
City Limit	6,400	10
Proposed Urban Growth Boundary	12,200	19
Proposed Sphere of Influence	14,500	23

Source: City of Los Banos, 2022.

3.5 PLANNING PROCESS

The process to update the existing General Plan began in late 2017 and is scheduled to be completed with the adoption of the proposed General Plan 2042 by the City Council in early fall 2022. The process included existing conditions data gathering, community engagement, recommendations for General Plan policy revisions to respond to legislative requirements enacted since 2009, an analysis of the competitiveness and feasibility of potential business park development in Los Banos, and preparation of the new *Los Banos Downtown Strategic Plan*, which was approved by City Council in February 2020. Throughout each of these steps, the City sought feedback from the community, property owners, business owners, and Planning Commissioners and City Councilmembers. Staff also met with interested organizations, such as the Grassland Water District, Merced County Farm Bureau, Central California Irrigation District, and Los Banos Unified School District, to understand and respond to their concerns.

Public feedback from community events and City Council and Planning Commission study sessions has been incorporated into the planning process and helped shape the policies and actions. Additionally, special stakeholder interviews were also held to refine draft policies in the Economic Development Element.

The City created a General Plan website at www.losbanos2042.org to enhance and inform the public process. The website provides all of the documents, maps, and meeting agendas, which are available for public download. The website offers information in both English and Spanish and provides the contact information for the City staff so that members of the public can send their thoughts and questions about Los Banos and the General Plan update throughout the process.

PROJECT DESCRIPTION

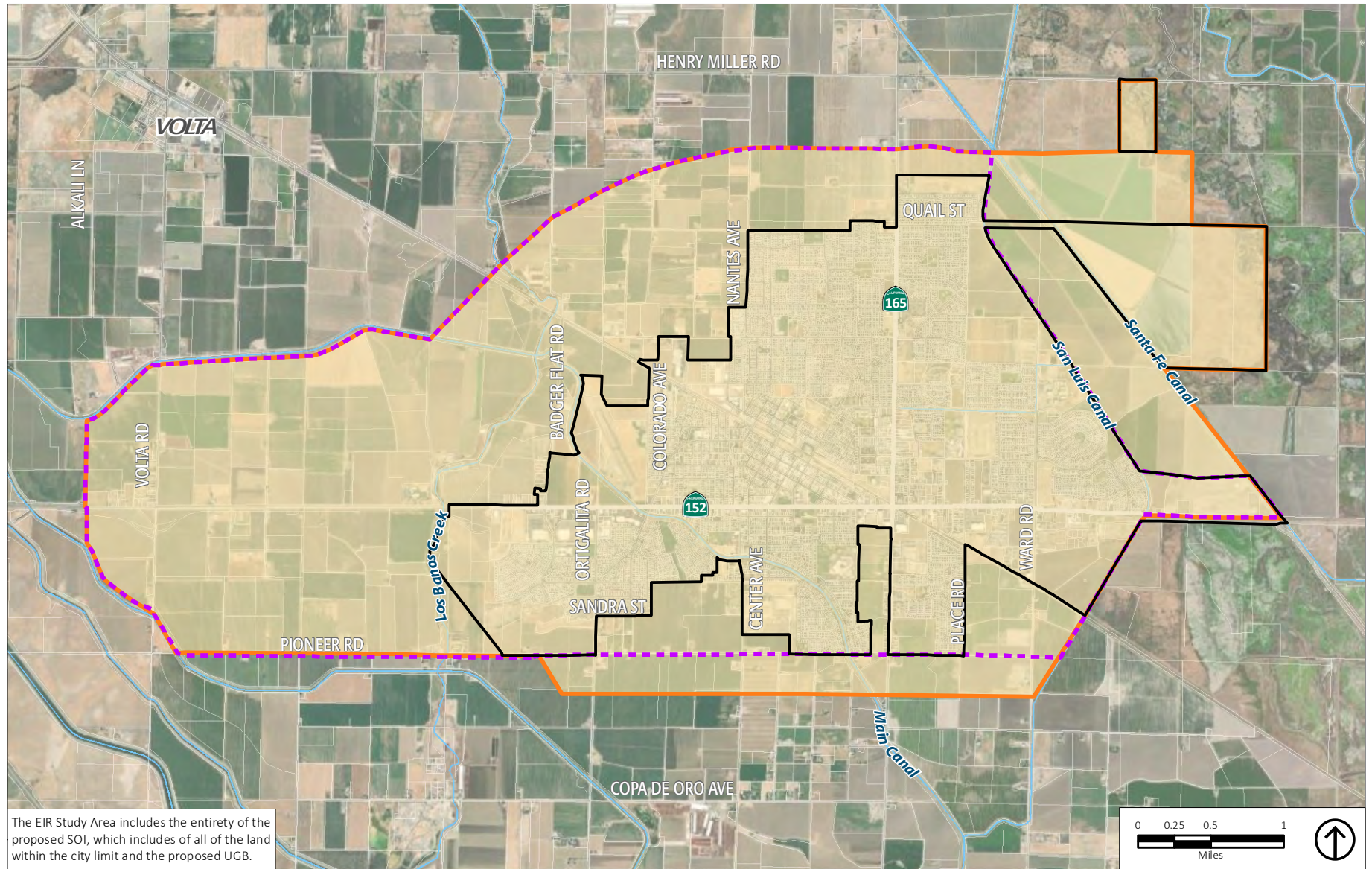


Figure 3-3
EIR Study Area

City Limit
 Proposed Urban Growth Boundary (UGB)
 Proposed Sphere of Influence (SOI)
 EIR Study Area

PROJECT DESCRIPTION

3.6 PROJECT OBJECTIVES

The primary purpose of the proposed project is to plan for the growth and conservation of Los Banos over a 20-year time horizon and to achieve a more equitable, sustainable, and prosperous future for all residents. Objectives related specifically to growth include focusing growth in the Downtown, capitalizing on existing infrastructure, and streamlining future development that is consistent with the proposed General Plan. This requires extending the buildout horizon to year 2042 and updating goals, policies, and actions so that they meet current State requirements and community priorities. Many issues not covered in earlier plans are addressed in the proposed project. These include how to enhance Downtown as a vibrant center, build a diversified job base, provide sites for housing and mixed-use development, improve environmental justice and community health, and prepare for adaptation and resilience to a changing climate. As part of this process, the City has identified eight key initiatives, which build upon the framework of the vision and goals of the existing General Plan and reflect the community's desires for the future of Los Banos. The following General Plan key initiatives will serve as the project objectives for the EIR.

- **Provide for balanced and sustainable growth.** Create and maintain a cohesive development pattern amidst the agriculture landscape, with clearly defined urban edges. An urban boundary is created to protect Los Banos' surrounding lands from sprawl, reduce the cost of extending costly infrastructure, and enhance the visual character of the city's edge. Land use policies are enacted to reduce incompatible land uses and ensure developments pay for their share of infrastructure, public facilities, and any environmental costs they might impose.
- **Create new jobs to develop the local economy.** Strive for more local jobs and an improved jobs/housing ratio. Land has been set aside in 'employment centers' at various parts of the city, and economic development initiatives have been proposed to help make Los Banos a desirable place to work and live.
- **Integrate neighborhoods and neighborhood centers.** Build quality neighborhoods and maintain a quality urban environment. Balanced neighborhoods include a mix of residential types and intensities and include activities and facilities that are used on a frequent basis— such as schools, stores, and parks. Land uses are designated to ensure balanced neighborhood development with a mix of uses and housing types, provision of parks and schools, and easy access to commercial activity centers.
- **Create a network of parks and open space.** In addition to neighborhood and community parks, create an interconnected network of pathways and trails. This system is envisioned to connect neighborhoods to one another and to create a pedestrian or bikeway linkage between parks, schools, neighborhood commercial centers, downtown, and employment centers.
- **Create a safe, efficient, and equitable circulation system for all users.** Establish a comprehensive set of principles and policies to enhance the existing system and promote a well-integrated and coordinated transit network and safe and convenient pedestrian and bicycle circulation. Establish a system of plantings, trees, and other amenities to add pleasant visual character to Los Banos' streets.
- **Provide ample retail and shopping opportunities.** Create quality retail outlets and a mix of retail sites to ensure jobs and sales tax revenue. These are intended to serve both local residents and a regional

PROJECT DESCRIPTION

population and are to be accessible by both automobiles and pedestrians, depending on type and location.

- **Plan for environmental justice.** Senate Bill (SB) 1000, the Planning for Healthy Communities Act, was passed in 2016 and requires that General Plans address environmental justice for disadvantaged communities that exist within the planning area of the General Plan. California law defines “environmental justice” as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.
- **Respond to State law requirements.** As previously described, the proposed General Plan 2042 builds off the current General Plan by incorporating similar topics and revising or adding new goals, policies, and actions that are required by State law. Table 3-2, *General Plan 2042 Updates Required by State Law*, provides a list of the key State laws that are addressed in the General Plan 2042, a summary of the purpose of the law, and the element that addresses the law.

TABLE 3-2 GENERAL PLAN 2042 UPDATES REQUIRED BY STATE LAW

Law	Purpose	General Plan 2042 Element
SB 743	Changes the standard method of measuring transportation impacts from level of service to vehicle miles traveled, encourages transit-oriented development reduces greenhouse gas (GHG) emissions.	Circulation
SB 18 and AB 52	Require consultation with Native American tribes as part of a general plan update and for any subsequent project that could have the potential to impact Native American resources.	Parks, Open Space, and Conservation
SB 244	Requires analysis of infrastructure deficiencies in any “disadvantaged unincorporated communities.” (No disadvantaged unincorporated communities have been identified in the Los Banos General Plan area.)	Land Use
SB 1000	Requires General Plans to include an element with environmental justice policies.	All Elements
AB 1358	Requires “complete streets” be addressed in a general plan which considers the needs of all modes of travel.	Circulation
AB 32 and SB 375	Addresses GHG reduction largely implemented on the State and regional levels.	Circulation
SB 379	Requires a general plan to address climate resiliency.	Safety and Noise
AB 2140	Requires a link between a city’s local hazard mitigation plan and the general plan.	Safety and Noise
SB 1241	Requires all jurisdictions to develop policies and implementation actions based on the most recent Fire Hazard Planning Guide from the State.	Safety and Noise
AB 1739	Requires that general plans consider impacts on groundwater and plans for groundwater basins.	Parks, Open Space, and Conservation
AB 162	Requires general plans to identify areas subject to flooding using the latest flood hazard information, and to prohibit new housing in areas that are not adequately protected from flooding.	Parks, Open Space, and Conservation

Notes: SB = Senate Bill; AB = Assembly Bill; GHG = greenhouse gas
Source: PlaceWorks, 2022.

3.7 PROJECT COMPONENTS

3.7.1 GENERAL PLAN 2042

The proposed project updates the current General Plan goals, policies, and actions to reflect current conditions, issues, resources, and community perspectives. For example, changes are needed to address the evolving state of the city and region and to cover global issues such as climate change and emerging transportation technologies. The update also incorporates regional forecasts for 2042 that extend the planning horizon forward by 20 years. This section provides a summary of the major components of the proposed General Plan 2042.

3.7.1.1 GENERAL PLAN CONTENTS AND ORGANIZATION

The proposed General Plan 2042 includes an introductory chapter and nine separate elements that establish goals, policies, and actions for each topic. The elements cover the topics required by California Government Code Section 65302 as well as topics of particular interest to Los Banos. A brief explanation of each General Plan element is provided herein.

- **Economic Development.** This chapter provides the economic framework for development in Los Banos and outlines associated policies and implementing actions.
- **Land Use.** This chapter provides the physical framework for development in the city. It establishes policies and implementing actions related to the location and intensity of new development and city-wide land use policies.
- **Circulation.** This chapter includes policies and implementing actions to maintain efficient circulation. It identifies future street and bikeway improvements and addresses alternative transportation modes and parking.
- **Housing.** This chapter identifies the housing needs of the city for all income levels and strategies and policies for providing housing to meet those needs. Since the Housing Element is updated more frequently than the other elements, it exists as its own document outside of the proposed General Plan 2042 and is not part of the proposed project.
- **Parks, Open Space, and Conservation.** This chapter outlines policies and implementing actions relating to regional and local parks and recreational facilities and preserved open space. It also addresses policies and implementing actions relating to habitat and biological resources, water quality, air quality, and historic and archaeological resources.
- **Safety and Noise.** This chapter addresses the risks posed by natural disasters, such as seismic and geologic hazards, flooding, wildfire, as well as climate change. It addresses public safety services, including police and fire. This chapter also includes policies and land use compatibility standards to limit the impacts of noise sources throughout the city.
- **Public Facilities and Services.** This chapter outlines policies and implementing actions relating to schools, libraries, and institutions of higher learning. The chapter also addresses local utilities, such as water and wastewater.

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- **Implementation and Monitoring.** This chapter includes details on how the proposed General Plan 2042 will be implemented.

3.7.1.2 PLANNING BOUNDARY CHANGES

The proposed project includes changes to the UGB and SOI and establishes the new proposed AOI. A comparison of the existing and proposed UGB and SOI boundary changes are shown on Figure 3-4, *Existing and Proposed Urban Growth Boundary*, and Figure 3-5, *Existing and Proposed Sphere of Influence*, respectively, and described in the following sections.

Proposed Urban Growth Boundary

As previously described in Section 3.4.1.2, *Urban Growth Boundary*, the UGB is created and solely defined by the City and represents land that the City anticipates for future annexation within the next 20 years. As shown on Figure 3-4, the current UGB extends beyond the city limit to the north, south, and west, and remains within the city limit to the east. The current UGB encompasses approximately 13,000 acres or 20 square miles. The proposed UGB would remain contiguous with the current UGB to the north; extend further to the east north of Quail Street and in between the San Luis Canal and Arroyo Canal north of SR-152 and south of the city limit; and would be contiguous with Pioneer Road to the south. The proposed UGB would encompass approximately 12,200 acres or 19 square miles.

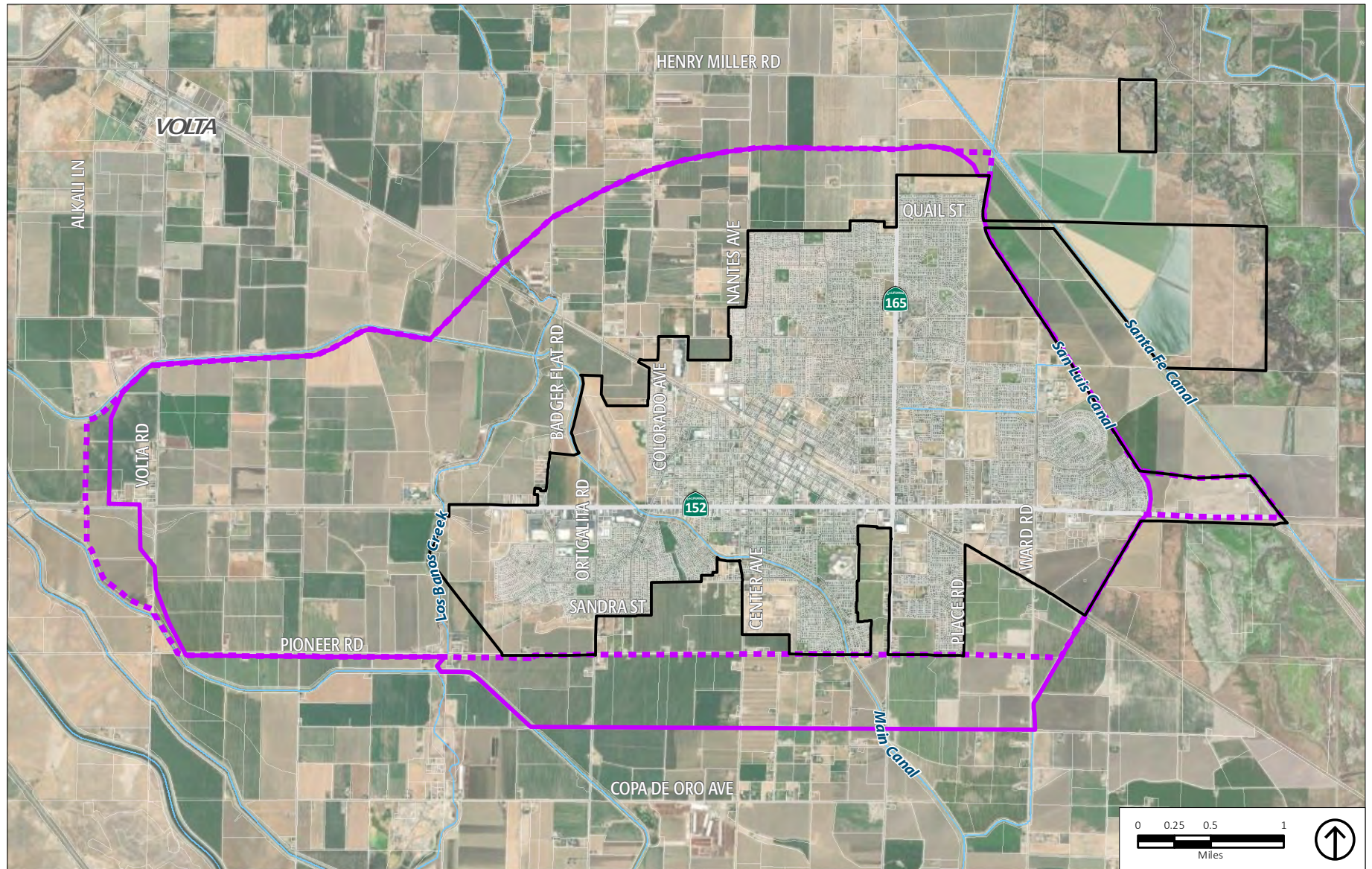
Sphere of Influence

As previously described in Section 3.4.1.3, *Sphere of Influence*, the SOI is defined and determined by Merced LAFCO, although the City can propose the area that it would like its SOI to include. As part of the proposed project, the City is proposing changes to the currently approved SOI (2004 SOI) and not the SOI shown on the current General Plan Land Use Map. The SOI shown on the current General Plan Land Use Map was never formally approved or denied by Merced LAFCO. As shown on Figure 3-5, the 2004 SOI is within the current UGB to the north, extends beyond the current UGB and beyond and partially along the Arroyo Canal to the east, extends below Pioneer Road to the south, and is within the current UGB to the west. The 2004 SOI is roughly 11,200 acres or 18 square miles. The proposed SOI would extend further north, east, and west of the 2004 SOI, but would remain contiguous with the 2004 SOI border to the south. The proposed SOI would be approximately 14,500 acres and 23 square miles.

Area of Interest

As previously described in Section 3.4.1.4, *Area of Interest*, the AOI is not considered for urban development or annexation by the City within the 20-year planning horizon of the General Plan 2042, but rather the City believes these areas bear a relationship to its planning where the Los Banos community should be able to participate in land use and transportation decisions. The proposed AOI encompasses a total of approximately 8,000 acres or 13 square miles, with approximately 4,900 acres or 8 square miles of land to the north of the proposed SOI and approximately 3,100 acres or 5 square miles of land to the south of the proposed SOI. The proposed General Plan would establish the AOI for the first time; the City does not currently have a formal AOI.

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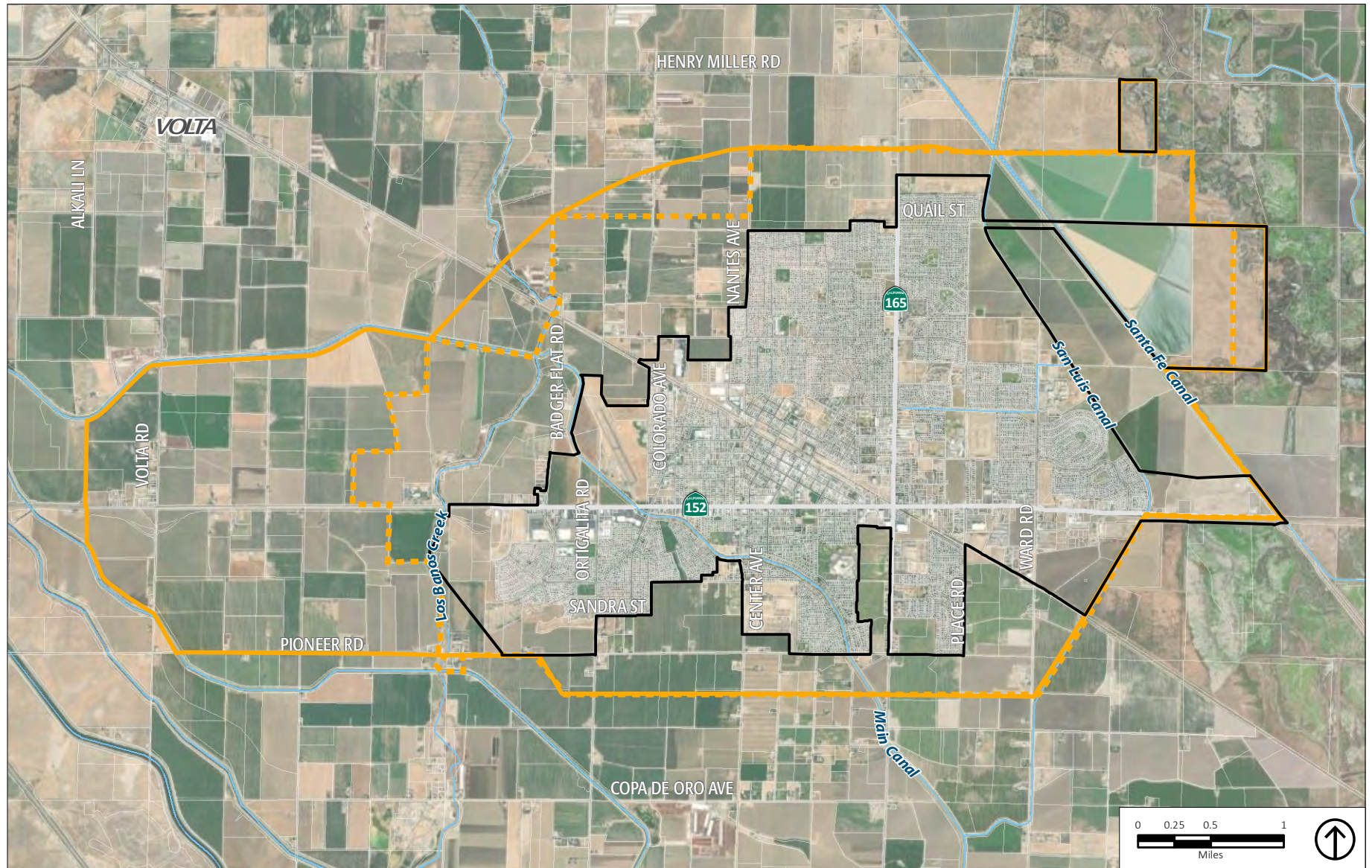
Source: California Department of Conservation, 2016; ESRI, 2018; Merced County, 2018; PlaceWorks, 2022.

City Limit Existing Urban Growth Boundary Proposed Urban Growth Boundary

PLACEWORKS

Figure 3-4
Existing and Proposed Urban Growth Boundary

PROJECT DESCRIPTION



Source: California Department of Conservation, 2016; ESRI, 2018; Merced County, 2018; PlaceWorks, 2022.

Figure 3-5
Existing and Proposed Sphere of Influence

City Limit Existing Sphere of Influence Proposed Sphere of Influence

PROJECT DESCRIPTION

3.7.1.3 GENERAL PLAN GOALS, POLICIES, AND ACTIONS

Each element of the proposed General Plan contains background information and a series of goals, policies, and actions. Policies and actions are at the same level of importance, and are both intended to support goals. In most cases, goals have both policies and actions. However, it is also possible for a goal to be supported exclusively by policies or actions. The following provides a description of goals, policies, and actions and explains the relationship between them:

- A *goal* is a description of the general desired result that the City seeks to create through the implementation of its General Plan.
- A *policy* is a specific statement that regulates activities in the city, guides decision making, and directs ongoing efforts as the City works to achieve a goal. A policy is ongoing and requires no further implementation. The General Plan's policies set out the standards that will be used by City staff and the other decision makers in their review of land development projects and in decision making about City actions.
- An *action* is a measure, procedure, or technique intended to help reach a specified goal. The City must take additional steps to implement each action in the General Plan. An action is something that can and will be completed.

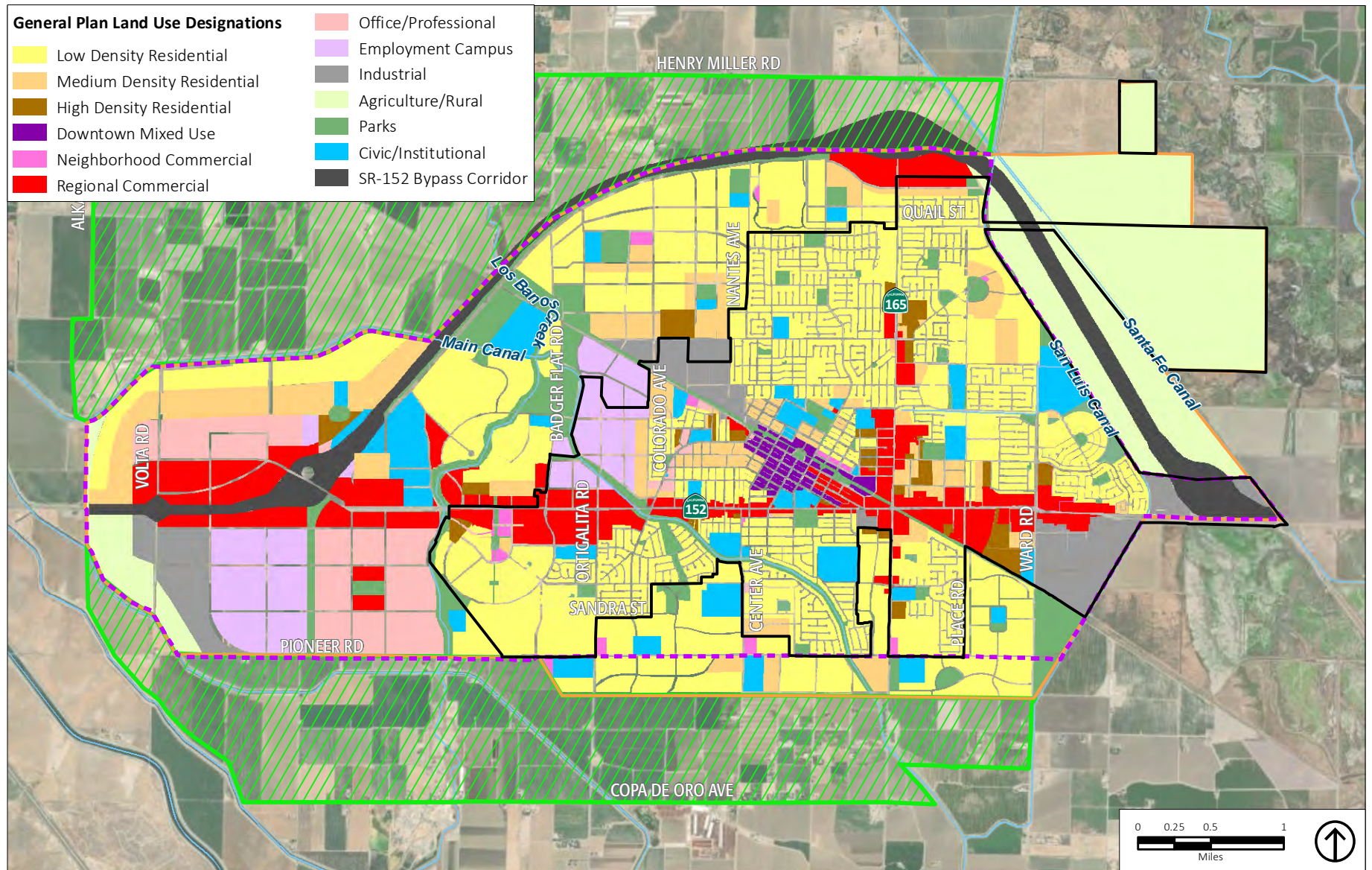
3.7.1.4 GENERAL PLAN LAND USE DESIGNATIONS

The proposed General Plan land use map is shown on Figure 3-6, *General Plan 2042 Land Use Map*. The General Plan land use designations would establish the uses, density ranges, and development intensities allowed on each parcel of land. In general, standards of building intensity for residential uses are stated as the allowable range of dwelling units per net acre. The number of units permitted will be further modified by the zoning district.

Standards of building intensity for nonresidential uses are stated as maximum floor-area ratios (FAR) based on net acreage. FAR is a ratio of the building square footage permitted on a lot to the net square footage of the lot. For example, on a site with 10,000 square feet of net land area, a FAR of 1.0 will allow 10,000 square feet of building floor area to be built. This could take the form of a two-story building with 50 percent lot coverage, or a one-story building with 100 percent lot coverage. A FAR of 0.4 would allow 4,000 square feet of floor area.

The following sections describe the proposed land use designations for the proposed General Plan 2042, which would be carried forward from the existing General Plan. The proposed General Plan 2042 does not introduce any new land use designation types.

PROJECT DESCRIPTION



Source: Merced County, 2019; PlaceWorks, 2022.

City Limit
 Proposed Urban Growth Boundary (UGB)
 Proposed Sphere of Influence (SOI)
 Proposed Area of Interest (AOI)

Figure 3-6

General Plan 2042 Land Use Map

PROJECT DESCRIPTION

Residential

In addition to homes, all residential designations allow community facilities that are appropriate for a residential environment, including accessory dwelling units, home occupations, residential care, daycare, elderly care, and alcoholism or drug abuse recovery or treatment facilities, provided standards and licensing requirements are met. Houses of worship and other places for religious assembly are allowed subject to appropriate development standards and use-permit requirements.

Each residential use includes a density range. The top of the range is the maximum density, excluding any units that may be permitted through density bonus programs. Accessory dwelling units are not counted toward the density limits, as required by California law. New housing in the Medium-Density Residential and High-Density Residential designations must be built at or above the minimum density in the range. New housing at densities below the “bottom” of the density range for each designation is generally not permitted, although exceptions may be made for existing small lots on which higher densities are infeasible.

- **Low-Density Residential.** This designation is intended for single-family development on lot sizes found in urbanized settings. Development intensities range from two to six units per net acre.
- **Medium-Density Residential.** This designation is intended for small-lot, single-family and low-density multifamily and/or attached homes. Allowable residential density is between 7 and 20 units per net acre. The proposed project would change the upper range of residential density from 12 to 20 units per net acre.
- **High-Density Residential.** This designation is intended for multifamily apartments and condominiums. Residential densities range from 20 to 30 units per net acre. The proposed project would change the lower range of residential density from 12 to 20 units per net acre and the upper range from 20 to 30 units per acre.

Mixed Use

Downtown Mixed-Use. This designation is intended for mixed-use development in Downtown Los Banos, and allows for a mixture of commercial, office, institutional, public/semi-public, and residential uses. Maximum FAR for nonresidential uses are 0.25 for retail and 2.0 for office use, with a maximum of 30 dwelling units per acre.

Commercial/Office/Industrial

- **Neighborhood Commercial.** This designation is intended for a mix of neighborhood-serving commercial uses that include small-scale office space and small retail stores, such as grocery stores and pharmacies, serving local residents. Development must be pedestrian-friendly and incorporate public amenities such as fountains, seating areas, and/or shade. The FAR range for this use is between 0.25 and 0.60.
- **Regional Commercial.** This designation is intended for large-scale commercial developments that serve residents and visitors from the surrounding region. Examples of this land use include shopping centers, large-format retail, auto sales, and travel-related services, such as hotels, gas stations, and

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restaurants. Most shopping opportunities in regional retail centers are likely to be national retailers with immediately recognizable household names. These uses typically require good access to at least region-serving roadways. Supportive office uses are also allowed in this designation. Allowable FAR ranges from 0.25 to 0.60. In addition, multifamily residential apartments and condominiums with a density of between 20 to 30 units per net acre are permitted on Regional Commercial parcels that are at least 40 acres or larger in size. The density of the multifamily residential developments shall be based on the net acreage of the resulting parcel created through subdivision. Where applicable, the residential uses shall be placed on the side of the lot closest to other adjacent residential uses and/or on the side away from incompatible uses.

- **Office/Professional.** This designation is intended for small-scale, local-serving professional and administrative offices, such as medical, dental, real estate, financial services, and research and development (R&D), as well as advanced educational or workforce training uses, such as community colleges and technology teaching institutes. Office/Professional parcels near the hospital allow specialized clinics, laboratories, and related services. This designation may also allow incidental restaurants, support services, and convenience retail activities. The FAR range for Office/Professional use is 0.25 to 0.60.
- **Employment Campus.** This designation is intended for large sites that draw employees from a wide area and provide a significant number of jobs. Sites with the Employment Campus designation are envisioned as a master-planned, regionally oriented development that may include business and office parks, light industries, incubator or R&D laboratories, testing, packaging or publishing centers, and employee-supporting amenities, such as dining, retail, services, and landscaped outdoor spaces. This designation also allows advanced educational or workforce training uses, such as community colleges and technology teaching institutes. Uses in this category are expected to have high-quality architectural and landscape design. Warehousing and distribution facilities are permitted as ancillary uses only. Industries producing substantial amounts of waste, odor, and other pollutants will not be permitted. The FAR ranges from 0.25 to 0.60.
- **Industrial.** This designation allows manufacturing, R&D, wholesale and warehouse distribution, agricultural and food processing, agricultural sales and services, truck terminals, utility operations, and similar activities, including those with outdoor facilities. Large retailers of appliances, heavy equipment rental, and sale of mobile homes or fabricated housing are allowed. Support commercial services and ancillary office space are allowed but uses in this category do not require pedestrian traffic or high visibility, and are not compatible with consumer-oriented retail. To minimize land-use conflicts and provide support for commercial areas, no large-scale retail uses are allowed. This land use differs from the Employment Campus designation by the greater amount of waste, noise, odor, and other pollutants that may be generated, and the comparatively little research or knowledge-based activities that may occur. Due to potential land conflicts with residential areas, new industrial land uses are planned only at the edges of the EIR Study Area. Buffers and other mitigation devices will be required where development occurs next to agricultural land or habitat areas. The FAR range for Industrial use ranges from 0.25 to 0.75.

Other

- **Agriculture/Rural.** This designation is intended for rural and agricultural land uses without municipal services. Typical development allows for large parcels with housing and agricultural service buildings

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and uses, with a maximum density of 0.1 units per acre, and an assumed average of 0.05 units per acre for buildout projections. For nonresidential structures, there is no minimum FAR, with a maximum FAR of 0.05.

- **Parks.** Public and private recreation sites and facilities at intensities of up to 0.05 FAR.
- **Civic/Institutional.** This designation is intended for lands including publicly owned facilities, such as schools, administrative offices, as well as facilities related to municipal services and infrastructure, including corporation yards, recycling centers, sewage treatment ponds, and police and fire stations. To offer public entities and institutions maximum flexibility, this use has no minimum or maximum intensity. The school sites depicted on the Land Use Diagram are intended to relate well to adjacent uses, such as neighborhood focal areas and park sites. School site locations can be adjusted if the school district chooses not to locate in those areas and the land will be designated in a compatible manner with the surrounding uses.
- **SR-152 Bypass.** This designation is for the areas that would be part of the planned SR-152 bypass around Los Banos. No development is permitted or anticipated in these areas, thus allowed densities and intensities are both zero. Existing agricultural uses are permitted to continue, but new structures are not permitted.

Neighborhood Planning Subareas

- **Pacheco Boulevard Corridor.** The Pacheco Boulevard Corridor subarea is along both sides of SR-152. This subarea contains various commercial establishments, including eateries, automobile dealerships, hotels, retail, and some light industrial uses. Pacheco Boulevard is a major gateway into and through Los Banos. The General Plan aims to keep land use mainly commercial and enhance its visual character through design requirements.
- **Central Neighborhood.** The Central Neighborhood subarea is bounded by H Street, Johnson Road, and the Downtown subarea. The subarea contains mainly low-density and medium-density residential homes built before 1980, as well as important destinations like the hospital. Its proximity to Downtown and its central location make it attractive. The General Plan aims to retain most of the existing uses in this subarea.
- **Airport.** The Airport subarea is at the site of the existing Los Banos Municipal Airport. Under the General Plan, an employment park is planned in this area if the airport is relocated. Land use compatibility with the airport is regulated by the *Merced County Airport Land Use Compatibility Plan* (ALUCP), which covers multiple airports in the county. The Airport Influence Area (AIA) for the Los Banos Municipal Airport extends approximately 2 miles from the airport runways. Figure 3-7, *Los Banos Municipal Airport Land Use Compatibility Zones*, shows the AIA made up of five compatibility zones established in the ALUCP. See Chapter 4.9, *Hazards and Hazardous Materials*, and Chapter 4.12, *Noise*, of this Draft EIR for additional information on the five compatibility zones.
- **Eastside.** The Eastside subarea is north of Pacheco Road/SR-152 and east of Mercey Springs Road/SR-165. Much of this subarea contains existing single-family neighborhoods that will expand to include more single-family neighborhoods, along with medium-density residential, neighborhood commercial, and parklands.

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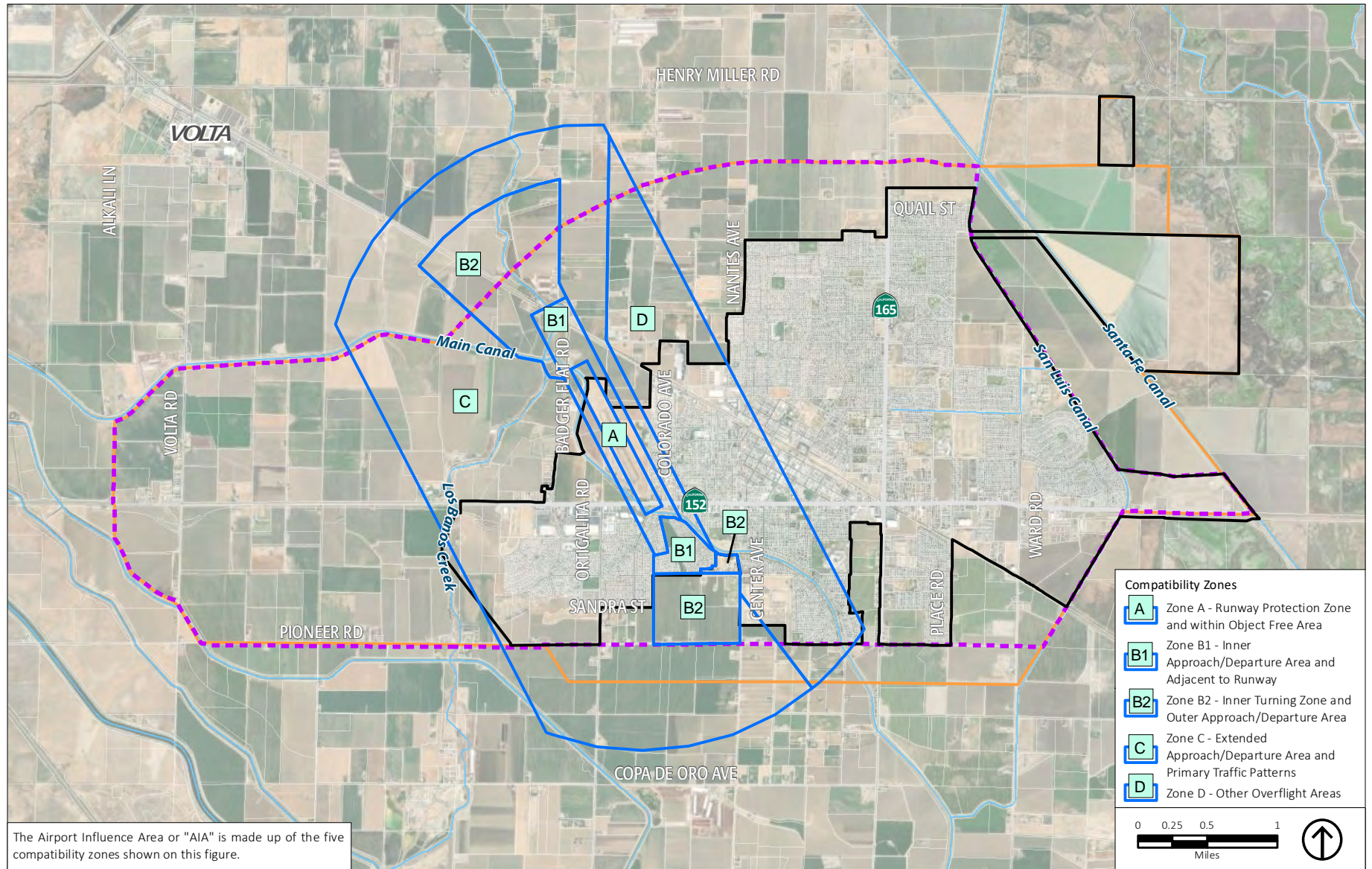


Figure 3-7
Los Banos Municipal Airport Land Use Compatibility Zones

PROJECT DESCRIPTION

3.7.2 ANNEXATION ORDINANCE

The proposed project includes minor text modifications to LBMC Title 9, *Planning and Zoning*, Chapter 3, *Zoning*, Article 2, *Definitions*; and Article 23, *Application Processing, Site Plan Review Procedure, Administrative Permits, Use Permits, Variances and Appeals*, Part 1, *General Provisions*. The proposed changes, shown below with ~~striketrough~~ text to represent the deleted text and underlined text to represent additions to clarify the definition of a Specific Plan and the decision-making authority. These changes support implementation of the proposed Annexation Ordinance to be adopted and codified as new Part 7, *Annexation*, of the LBMC.

The purpose of the proposed Annexation Ordinance is to establish the annexation application eligibility criteria and the findings necessary for annexation application approval by the City prior to submittal to the Merced LAFCO. Note, as previously described, all annexations must go through a specific legal process that requires input from residents or property owners and are subject to the Merced LAFCO review and approval. In addition to the application eligibility criteria and the findings necessary for approval, the Annexation Ordinance includes the requirements for Specific Plan contents.

3.7.2.1 EXISTING TEXT MODIFICATIONS

The proposed text modifications are as follows.

Section 9-3.201, Definitions.

“~~Area~~Specific plan” means a plan used to facilitate an annexation into the City that ~~and involves~~ includes rezoning the property with specified land uses, describes and maps circulation and transportation systems ~~with data and figures~~ and ~~illustrates conceptual~~ provides utility designs ~~with data and figures needed to serve the area.~~

Section 9-3.2314, Decision-making authority.

- (a) The Planning Director shall be the decision-making authority for administrative permits.
- (b) The Planning Commission shall be the decision-making authority for site plan reviews, use permits, and variances.
- (c) The Planning Commission is the recommending body to the City Council for zone change, ordinance amendment, general plan amendment, specific plan adoption and amendment, and annexation applications and for use permit applications for alcohol sales. The City Council is the final decision-making authority for said applications.

3.7.2.2 NEW PART 7. ANNEXATION

The new proposed Annexation Ordinance is as follows.

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Section 9-3.2335, Application eligibility criteria.

- (a) Any land requested to be annexed must be contiguous with existing city limits, within the Urban Growth Boundary, and at least 75 percent within the Sphere of Influence.
- (b) Annexation must be consistent with the policies of the City's general plan and all appropriate City development standards and must be processed under an application for a specific plan funded fully by the applicant that includes zoning for the subject area and that may also include a development agreement.
- (c) Existing water supplies must remain with the land and be transferred to the City upon annexation; no new wells or septic systems shall be allowed.

Section 9-3.2336, Findings necessary for approval.

- (a) Adequate city utilities and public safety services must be able to be provided.
- (b) The new development must fully fund construction of all improvements needed both on- and off-site to mitigate its impacts on public safety services, utility and transportation infrastructure, and parks, recreation and educational facilities.

Section 9-3.2337, Specific plan contents.

- (a) All specific plans shall include:
 - 1. Location and extent of land uses, including standards for land use intensity, and transportation routes, including precise alignment of streets, bikeways and sidewalks.
 - 2. Design standards for public arterials, collectors and local streets that address street widths and lane configurations, landscaping and street trees, and the location of sidewalks, crosswalks and pedestrian amenities, as well as bike routes and on-street parking.
 - 3. Location and specifications for sewer, water and drainage facilities needed to serve new development consistent with City infrastructure master plans.
 - 4. Location and financing of parks, trails, schools and other public and quasi-public facilities.
 - 5. Design standards for all new buildings and public and private improvements, including landscaping, park layout and improvement, neighborhood identification signs and monuments, and walls and fences.
 - 6. Phasing plans that require areas closest to existing urban development to be developed first and include and timing of improvements needed to fully mitigate impacts to public services or facilities.
 - 7. Provisions for minimizing conflicts between new development and agricultural uses.
 - 8. Fiscal analysis of the effect of the development on the City's general fund and means for funding needed additional public services and facilities.
- (b) Specific plans for areas with residential uses shall also include:

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1. A range and locational mix of housing types that promotes social and economic integration.
2. A connected street pattern.
3. Drainage facilities that utilize green infrastructure or are designed as natural waterways wherever possible and consistent with public safety considerations.
4. A system of pedestrian trails or pathways and linear open-space corridors that link residents to parks, schools, downtown, shopping areas, and employment centers.
5. Sites and funding for school facilities needed to meet the demand created by the proposed development.

(c) Specific plans for areas with industrial and business park uses shall also include:

1. Provisions for services and amenities for employees including recreation, childcare, and dining.

3.8 2042 DEVELOPMENT PROJECTIONS

This EIR analyzes the potential for growth to 2042, which represents a 20-year buildout horizon. Under CEQA Guidelines Section 15126.6(3)(A), when a project consists of the revision of a plan or policy, the project's impacts are assessed against existing conditions, and future conditions under the existing plan are treated as the "No Project" alternative.

Under Section 15064(d) of the CEQA Guidelines, "In evaluating the significance of the environmental effect of a project, the lead agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project." The projections represent the City's estimation of "reasonably foreseeable" development that could occur over the next 20 years under the General Plan and are used as the basis for those topics in the EIR's environmental assessment that rely on quantitative analysis. See Chapter 4, *Environmental Analysis*, of this Draft EIR, for a description of environmental analysis scenarios for this EIR. The projections do not presume that every parcel is developed to the maximum level allowed under the General Plan. Rather, they recognize regional demographic and economic forecasts, and the probable share of regional growth that would be captured by Los Banos given its policies and land use regulations. Horizon year (2042) projections within the EIR Study Area are shown in Table 3-3, *Proposed 2042 Buildout Projections in the EIR Study Area*.

TABLE 3-3 PROPOSED 2042 BUILDOUT PROJECTIONS IN THE EIR STUDY AREA

Category	Existing Conditions (2021)	Projected Growth 2022-2042 (Proposed Project)	Buildout Estimates (2042)
Households	11,900	8,300	20,200
Housing Units	12,800	8,900	21,700
Total Population	42,900	29,600	72,500
Jobs	7,000	5,000	12,000

Notes: Numbers are rounded from original sources.

Sources: City of Los Banos, 2022; Merced County Association of Governments, 2018; State of California, Department of Finance, 2021; Center for Business and Policy Research at the University of Pacific, 2016; PlaceWorks, 2022.

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3.9 INTENDED USES OF THE EIR

This EIR is intended to review potential environmental impacts associated with the adoption and implementation of the proposed project and determine corresponding mitigation measures, as necessary. This EIR is a program-level EIR and does not evaluate the impacts of specific, individual developments that may be allowed under the proposed General Plan. Each specific future project will conduct separate environmental review, as required by CEQA, to secure the necessary discretionary development permits. Therefore, while subsequent environmental review may be tiered off this EIR, this EIR is not intended to address impacts of individual projects. Subsequent projects will be reviewed by the City for consistency with the General Plan 2042 and this EIR. Projects successive to this EIR include, but are not limited to, the following:

- Approval and funding of major public projects and capital improvements.
- Updates to the City's Municipal Service Review and Comprehensive Annexation Plan, and other utility infrastructure master plans, such as the Water, Wastewater, and Stormwater Master Plans.
- Updates or amendments to the City's Zoning Code.
- Issuance of permits and other approvals necessary for implementation of the proposed project.
- Annexation of land into the city limits.
- Property rezoning consistent with the proposed General Plan.
- Development plan approvals, such as tentative maps, variances, conditional use permits, and other land use permits.
- Permit issuance and other approvals necessary for public and private development projects.
- Development agreement processes and approvals.

3.10 REQUIRED PERMITS AND APPROVALS

The proposed project would require adoption by the Los Banos City Council. The Planning Commission and other decision-making bodies will review the proposed project and make recommendations to the City Council. While other agencies may be consulted during the General Plan update process, their approval is not required for General Plan 2042 adoption. However, subsequent development under the General Plan 2042 may require approval of State, federal, responsible, and trustee agencies that may rely on the programmatic EIR for decisions in their areas of permitting. The 2042 SOI proposed in the General Plan 2042 must be reviewed and approved by the Merced LAFCO.

4. Environmental Analysis

This chapter describes the organization of the environmental analysis section of this Draft Environmental Impact Report (EIR) and the assumptions and methodology of the impact analysis and the cumulative impact setting.

CHAPTER ORGANIZATION

The Draft EIR is made up of 17 subchapters that evaluate the direct, indirect, and cumulative environmental impacts of the proposed project. In accordance with Appendix F, *Energy Conservation*, and Appendix G, *Environmental Checklist Form*, of the California Environmental Quality Act (CEQA) Guidelines, the potential environmental effects of the proposed project are analyzed for potential significant impacts in the following 17 environmental issue areas, which are organized with the listed abbreviations:

4.1	Aesthetics (AES)	4.10	Hydrology and Water Quality (HYD)
4.2	Agricultural Resources (AG)	4.11	Land Use and Planning (LU)
4.3	Air Quality (AIR)	4.12	Noise (NOI)
4.4	Biological Resources (BIO)	4.13	Population and Housing (POP)
4.5	Cultural and Tribal Cultural Resources (CUL)	4.14	Public Services, Parks, and Recreation (PS)
4.6	Energy (ENE)	4.15	Transportation (TRAN)
4.7	Geology and Soils (GEO)	4.16	Utilities and Service Systems (UTIL)
4.8	Greenhouse Gas Emissions (GHG)	4.17	Wildfire (WF)
4.9	Hazards and Hazardous Materials (HAZ)		

Each subchapter is organized into the following sections:

- **Environmental Setting** offers a description of the existing environmental conditions, providing a baseline against which the impacts of the proposed project can be compared, and an overview of federal, state, regional, and local laws and regulations relevant to each environmental issue.
- **Standards of Significance** refer to the quantitative or qualitative standards, performance levels, or criteria used to evaluate the existing setting with and without the proposed project to determine whether the impact is significant. These thresholds are based primarily on the CEQA Guidelines, and also may reflect established health standards, ecological tolerance standards, public service capacity standards, or guidelines established by agencies or experts.
- **Impact Discussion** gives an overview of the potential impacts of the proposed project and explains why impacts are found to be significant or less than significant prior to mitigation. This subsection also includes a discussion of cumulative impacts related to the proposed project. Impacts and mitigation measures are numbered consecutively within each topical analysis and begin with an acronym or abbreviated reference to the impact section.

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STANDARDS OF SIGNIFICANCE

As stated, significance criteria are identified before the impact discussion subsection, under the subsection, “Standards of Significance.” For each impact identified, a level of significance is determined using the following classifications:

- **Significant.** A significant impact includes a description of the circumstances where an established or defined threshold would be exceeded.
- **Less Than Significant.** A less-than-significant impact includes effects that are noticeable, but do not exceed established or defined thresholds, or can be mitigated below such thresholds.
- **No Impact.** A no impact conclusion describes circumstances where there is no adverse effect on the environment.
- **Significant and Unavoidable.** For each impact identified as being significant, the EIR identifies mitigation measures to reduce, eliminate, or avoid the adverse effect. If one or more mitigation measure would reduce the impact to a less-than-significant level successfully, this is stated in the EIR. Significant and unavoidable impacts are described where mitigation measures would not diminish these effects to less-than-significant levels. The identification of a program-level significant and unavoidable impact does not preclude the finding of less-than-significant impacts for subsequent projects that comply with the applicable regulations and meet applicable thresholds of significance.

EVALUATION METHODOLOGY

Under CEQA, the decision as to whether an environmental effect should be considered significant is reserved to the discretion of the City of Los Banos, acting as the lead agency, based on substantial evidence in the record as a whole, including views held by members of the public. An ironclad definition of significant effect is not always possible because the significance of an activity may vary based on the setting. The analysis in the Draft EIR is based on scientific and factual data that has been reviewed by the lead agency and represents the lead agency’s independent judgment and conclusions.¹ This section describes the methodology for the program-level evaluation in Chapters 4.1 through 4.17 with respect to the horizon year, the baseline, the application of the proposed General Plan 2042 policies, parking impacts, effects of the environment on the project, and cumulative impacts.

4.1.1 2042 HORIZON DEVELOPMENT POTENTIAL

The environmental analysis in this EIR discusses the potential for adverse impacts to occur from extending the buildout potential in the EIR Study Area to horizon year 2042; increasing the buildout potential in the EIR Study Area; new and modified General Plan goals, policies, and actions; and the new Annexation Ordinance.

¹ California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15064(b).

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The 2042 horizon development potential under the proposed project includes the net increase of realistic development potential for the city. As shown in Table 3-3, *Proposed 2042 Buildout Projections in the EIR Study Area*, in Chapter 3, *Project Description*, of this Draft EIR, this combined projected new growth in the entire EIR Study Area for the 2042 horizon year includes approximately 8,300 new households; 8,900 new residential units; 29,600 new residents; and 5,000 new jobs.

Because the proposed project consists of two long-term policy documents (i.e., General Plan 2042 and Annexation Ordinance) that are intended to guide future development activities and City actions, and because no specific development projects are proposed as part of the project, it is reasonable to assume that future development would occur incrementally or gradually over the 20-year buildout horizon (e.g., 2022 to 2042). However, while this assumption describes the long-range nature of the proposed project, it does not prohibit or restrict when development can occur over the horizon period.

4.1.2 BASELINE

As discussed in Chapter 3, *Project Description*, of this Draft EIR, although many of the goals, policies, and actions of the existing General Plan are being affirmed and incorporated into the proposed project, this EIR does not evaluate the proposed project compared to the full potential buildout allowed by the existing General Plan, but rather evaluates the impacts of the proposed project compared to existing conditions, as required by CEQA Guidelines Section 15126.2. As shown in Table 4-1, *Existing Baseline Conditions*, the baseline represents the existing conditions on the ground (“physical conditions”), as described in Table 3-3, *Proposed 2042 Buildout Projections in the EIR Study Area*, in Chapter 3, *Project Description*.

TABLE 4-1 EXISTING BASELINE CONDITIONS

Category	Existing Conditions (2021)
Households	11,900
Housing Units	12,800
Total Population	42,900
Jobs	7,000

Notes: Numbers are rounded from original sources.

Sources: City of Los Banos, 2022; Merced County Association of Governments, 2018; State of California, Department of Finance, 2021; Center for Business and Policy Research at the University of Pacific, 2016; PlaceWorks, 2022.

4.1.3 GENERAL PLAN 2042 POLICIES

As discussed in Chapter 3, *Project Description*, the proposed goals, policies, and actions aim to reduce vehicle miles traveled, greenhouse gas emissions, air and water pollutants, energy consumption, water demand, and solid waste generation by promoting infill development; increase opportunities for alternative modes of transportation, pedestrian and bicycle access and connectivity, and local jobs; protect open space; conserve natural resources; and require adherence to green building practices. General Plan policies aim to avoid hazardous conditions and facilitate a healthy and safe environment for residents and visitors to Los Banos. In addition, General Plan policies aim to protect cultural resources, including historic buildings, and ensure new development and redevelopment is compatible with neighboring land uses.

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Substantive General Plan policy and action changes include the addition, removal, or functional revisions (i.e., not purely semantic) to the text in ways that have the potential to result in a physical impact on the environment. Discussions of how substantive policy changes may result in adverse physical changes are included in the analyses under each impact criterion in the Impact Discussion section in Chapters 4.1 through 4.17 of the Draft EIR. Amended and new policies collectively reflect the changes to the current General Plan 2030. The proposed goals, policies, and actions have been carefully reviewed for their adequacy in reducing and/or avoiding impacts to the environment that could occur from future development in the EIR Study Area. The proposed General Plan goals, policies, and actions are listed in the impact discussions of Chapters 4.1 through 4.17 to illustrate where they would reduce impacts from potential future development in Los Banos.

The content of the General Plan 2042 policies is directly integrated with and reflective of the proposed project as a whole. Therefore, impact discussions for the effects of the proposed project necessarily encompass analysis of the effects of these policies as a whole, and policies with relevance to CEQA topics are discussed in the appropriate chapters. Nonsubstantive changes include the renumbering of policies or minor text revisions, which do not have the potential to result in a physical change to the environment.

4.1.4 POTENTIAL EFFECTS OF THE ENVIRONMENT ON THE PROJECT

The California Supreme Court concluded in the *California Building Industry Association vs. Bay Area Air Quality Management District* (CBIA vs. BAAQMD) case that “CEQA generally does not require an analysis of how existing environmental conditions will impact a project’s future users or residents.” The CBIA vs. BAAQMD ruling provided for several exceptions to the general rule where an analysis of the project on the environment is warranted: (1) if the project would exacerbate existing environmental hazards (such as exposing hazardous waste that is currently buried); (2) if the project qualifies for certain specific specified exemptions (certain housing projects and transportation priority projects per Public Resources Code (PRC) Sections 21159.21 (f),(h); 21159.22 (a),(b)(3); 21159.23 (a)(2)(A); 21159.24 (a)(1),(3); or 21155.1 (a)(4),(6)); (3) if the project is exposed to potential noise and safety impacts on projects due to proximity to an airport (per PRC 21096); and (4) school projects require specific assessment of certain environmental hazards (per PRC 21151.8). Therefore, the evaluation of the significance of project impacts under CEQA focuses on the potential impacts of the proposed project on the environment, including whether the proposed project may exacerbate any existing environmental hazards. Existing potential environmental hazards in Los Banos include seismic hazards, flooding, and wildfire. Therefore, while the effects of these hazards on the proposed project are not subject to CEQA review following the CBIA vs. BAAQMD case,² the City recognizes that seismic, flooding, and wildfire hazards are issues of local concern. Therefore, a discussion of the project’s potential to exacerbate these hazardous conditions is provided in Chapter 4.7, *Geology and Soils*; Chapter 4.10, *Hydrology and Water Quality*; and Chapter 4.17, *Wildfire*, of this Draft EIR.

² *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369.

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4.1.5 CUMULATIVE IMPACT ANALYSIS

A cumulative impact consists of an impact created as a result of the combination of the project evaluated in the EIR, together with other reasonably foreseeable projects causing related impacts. Section 15130 of the CEQA Guidelines requires an EIR to discuss cumulative impacts of a project when the project's incremental effect is "cumulatively considerable." Used in this context, cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. In the case of a long-range plan such as the General Plan 2042, cumulative effects occur when future development under the long-range plan is combined with development in the surrounding areas, or in some instances, in the entire region.

Where the incremental effect of a project is not "cumulatively considerable," a lead agency need not consider that effect significant but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. The CEQA Guidelines state that a lead agency has discretion to determine if a project's contribution to a significant cumulative impact is cumulatively considerable.

The cumulative discussions in Chapters 4.1 through 4.17 of this Draft EIR explain the geographic scope of the area affected by each cumulative effect (e.g., immediate project vicinity, county, watershed, or air basin). The geographic area considered for each cumulative impact depends on the impact that is being analyzed. For example, in assessing macro-scale air quality impacts, all development within the air basin contributes to regional emissions of criteria pollutants, and basinwide projections of emissions are the best tool for determining the cumulative impact. In assessing aesthetic impacts, on the other hand, only development within the local area of change would contribute to a cumulative visual effect since the area of change is only visible in its vicinity.

CEQA Guidelines Section 15130 permits two different methodologies for the cumulative impact analysis:

- The "list" approach permits the use of a list of past, present, and probable future projects producing related or cumulative impacts, including projects both within and outside the city.
- The "projections" approach allows the use of a summary of projections in an adopted plan or related planning document, such as a regional transportation plan, or in an EIR prepared for such a plan. The projections may be supplemented with additional information such as regional modeling.

The cumulative impact analysis in this Draft EIR relies on a projections approach and takes into account growth from the proposed project within the EIR Study Area in combination with impacts from projected growth in the rest of Merced County and the surrounding region, as forecast by *2018 Regional Transportation Plan & Sustainable Communities Strategy for Merced County* (2018 MCAG RTP/SCS). The following provides a summary of the cumulative impact setting for each impact area:

- **Aesthetics:** The cumulative setting for visual impacts includes potential future development under the proposed project combined with effects of development on lands adjacent to the city in unincorporated Merced County.

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- **Agricultural Resources:** The geographic scope of the cumulative analysis for agricultural resources considers those agriculture resources deemed to be resources of statewide importance in the surrounding incorporated and unincorporated lands, the region, and the state.
- **Air Quality:** Cumulative air quality impacts could occur from a combination of the proposed project with regional growth within the San Joaquin Valley Air Basin.
- **Biological Resources:** The geographic scope of the cumulative analysis for biological resources considers the surrounding incorporated and unincorporated lands and the region.
- **Cultural and Tribal Resources:** Cumulative impacts to cultural and tribal resources could occur from projected growth in the surrounding region.
- **Energy:** Cumulative impacts to energy resources could occur from the estimated growth in the energy provider's service area.
- **Geology and Soils:** Potential cumulative geological impacts could arise from future growth in the immediate vicinity of Merced County.
- **Greenhouse Gas Emissions:** The cumulative impact analyses for greenhouse gas (GHG) emissions are related to the entire region. Because GHG emissions are not confined to a particular air basin but are dispersed worldwide, the cumulative impact analysis focuses on the global impacts and thus, is by its nature cumulative.
- **Hazards and Hazardous Materials:** The cumulative analysis considers the effects of growth in the rest of Merced County and surrounding region.
- **Hydrology and Water Quality:** The geographic context used for the cumulative assessment of hydrology and water quality impacts, including the potential to exacerbate the potential for flooding, considers the watersheds that encompass Los Banos.
- **Land Use and Planning:** The geographic context for the cumulative land use and planning effects considers impacts from projected growth in the rest of Merced County and the surrounding region, as forecast in the 2018 MCAG RTP/SCS.
- **Noise:** The traffic noise levels are based on cumulative traffic conditions that take into account cumulative development in the Merced County region.
- **Population and Housing:** Impacts from cumulative growth are considered in the context of their consistency with regional planning efforts in the Merced County region.
- **Public Services and Recreation:** Cumulative impacts are considered in the context of projected growth in the rest of Merced County and the surrounding region, as forecast by the 2018 MCAG RTP/SCS, and contiguous with the service area boundaries of the service providers evaluated in this section.
- **Transportation:** The analysis of the proposed project addresses cumulative impacts to the transportation network in the surrounding area.
- **Utilities and Service Systems:** Cumulative impacts are considered in the context of the estimated growth in each utility's service area.
- **Wildfire:** The analysis of the proposed project includes a discussion of how cumulative development in the region may exacerbate wildfire risk in Los Banos and the surrounding area.

4.1 AESTHETICS

This chapter describes the potential aesthetics impacts associated with the adoption and implementation of the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential aesthetics impacts, and identifies General Plan policies that could minimize any potentially significant impacts.

4.1.1 ENVIRONMENTAL SETTING

4.1.1.1 REGULATORY FRAMEWORK

State Regulations

California State Scenic Highways Program

California's Scenic Highway Program was created by the State legislature in 1963. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The State laws governing the Scenic Highways Program are found in the Streets and Highways Code, Sections 260 through 263. The California Scenic Highway Program is maintained by the California Department of Transportation (Caltrans).

California Building Code

The State of California provides a minimum standard for building design through Title 24 of the California Code of Regulations, commonly referred to as the California Building Code (CBC). The CBC is in Part 2 of Title 24. The CBC is updated on a three-year cycle. It is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions under specific amendment rules prescribed by the State Building Standards Commission. The CBC includes standards for outdoor lighting that are intended to reduce light pollution and glare by regulating light power and brightness, shielding, and sensor controls.

California Building Code: CALGreen

The California Building Standards Commission adopted the California Green Building Standards Code, also known as CALGreen. As part of the CBC, CALGreen is in Part 11 of Title 24. CALGreen establishes building standards aimed at enhancing the design and construction of buildings through the use of building concepts that reduce negative impacts and increase positive environmental impacts by encouraging sustainable construction practices. Specifically, Section 5.106.8, *Light Pollution Reduction*, establishes backlight, uplight, and glare ratings to minimize the effects of light pollution for nonresidential development. The local building permit process enforces the mandatory provisions of CALGreen.

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Local Regulations

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives to minimize adverse impacts to visual resources in Los Banos. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions related to aesthetics impacts are included in Title 9, *Planning and Zoning*, as follows:

- **Title 9, *Planning and Zoning*.** The site development standards for each zoning district, such as, minimum lot area, maximum building coverage, maximum floor-area ratio (FAR), minimum setbacks, maximum height, yard size and open space, parking standards, lot sizes, set back standards and design standards, are contained throughout this title.
- **Chapter 9.2, *Subdivision*, Article 5, *Design Standards*.** This part of the LBMC establishes the City's design standards for subdivisions to conform with the adopted *Improvement Standards and Specifications* for public designations, such as, but not limited to, street design, block, minimum sidewalk width, lots, and streets and alleys.
- **Chapter 9.3, *Zoning*, Article 20, *Off-street Parking*.** Section 9-3.2009, *Parking Design Standards*, states that for illuminated parking areas of nonresidential uses, lighting fixtures should be equipped with directional prismatic lenses and hooding devices to deflect lighting away from residential sites and from keep light from interfering with the driving safety of vehicular traffic.
- **Chapter 9.3, *Zoning*, Article 21, *Performance Standards*.** Section 9-3.2108, *Glare*, establishes a regulation that no direct or reflected glare, whether produced by floodlight or high temperature, shall be visible from any property boundary line. Direct sky-reflected glare shall not emanate from any building, so as to cause an annoyance or inconvenience, while in and about such area.
- **Chapter 9.3, *Zoning*, Article 23, *Application Processing, Site Plan Review Procedure, Administrative Permits, Use Permits, Variances and Appeals*.** Section 9-3.2317, *Project Review Board*, establishes the review body for projects in Los Banos. The Project Review Board reviews and considers the site plan design of project proposals in light of the General Plan, any applicable specific plan, the adopted design review policies set forth in the *Community Design Standards*, any applicable development standards set forth in this LBMC, and provides an advisory recommendation to the Planning Commission.
- **Chapter 9.3, *Zoning*, Article 33, *Outdoor Lighting*.** This chapter contains lighting requirements, ensuring the proper installation and maintenance of outdoor lighting to safeguard safety, security, and aesthetics. Section 9-3.3308, *Design Standards*, sets the quality lighting design standards aimed to reduce light pollution, undesired glare, and encourage quality lighting designs. Maximum height of ground-mounted luminaries on all pedestrian walkways are not to exceed a maximum height of 20 feet. All building luminance levels are required to not exceed 10 foot-candles.

Los Banos Community Design Standards

The City adopted the *Community Design Standards* in November 2008 to promote excellence in the design of buildings, sites, and neighborhoods. The *Community Design Standards* are applied to new development or improvements to existing development in the following General Plan land use designations:

- Downtown Commercial
- Highway Commercial
- Commercial
- Residential

The *Community Design Standards* are intended to assist staff and the decision-making bodies in judging the suitability of proposed projects in terms of their architecture, site design, landscaping, circulation, and compatibility with existing and planned adjacent development. The *Community Design Standards* are authorized through implementing ordinances in the LBMC that spell out procedures and adopt the provisions of the *Community Design Standards* by reference.

The main goal of the *Community Design Standards* is to help maintain the City's small-town atmosphere, while ensuring all new development is following the highest level of design quality. Design standards, organized by General Plan land use designations listed previously, address building size, mass, scale, and compatibility; facades and walls; architectural features and details; building entryways; window design; building materials; building color; rooftops; utilities and services; historic structures; setbacks; alleys, lanes, and driveways; off-street and on-street parking; loading docks, storage, and service facilities; open space and landscaping; lighting; signage; streets; streetscapes; pedestrian facilities; circulation; downtown gateways; site layouts; sustainability; sensitivity to surroundings; single-family and multifamily; compact development; and character.

Appendix B, *General Plan Design Policies*, of the Community Design Standards identifies all of the corresponding General Plan policies and actions that are related to the design of potential future development in Los Banos. Many of these policies are being revised as part of the proposed project.

Other Design Standards

Design standards for other specific areas within the city are included in the Rail Trail Corridor Regulating Code and the Parks Master Plan. A description of these planning documents is provided in the following sections.

Rail Trail Corridor Regulating Code

The Rail Trail Corridor Regulating Code, Resolution No. 5380, prepared in 2007 and revised in 2012, governs the development and future land use of 60 acres of land along the existing Rail Trail that runs along the former route of the Union Pacific Railroad tracks. The Regulating Code's plan area lies between H and G Streets and spans from 2nd Street to one parcel away from Mercey Springs Road. The Regulating Code provides a vision and sets forth regulations for a mix of land uses, building standards, architectural design standards, streetscape standards, block configurations, public spaces, and parking.

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Parks Master Plan

Section 8, *Park Design and Development Guidelines*, of the Parks Master Plan includes the design guidelines that support consistency and quality in planning, building, and maintaining new and updated parks and facilities. These guidelines support the *Parks Master Plan* vision and goals and provide greater detail on plan recommendations from developers. These guidelines also allow for flexibility and creativity to respond to different conditions. Current and future Los Banos parks and recreation facilities are different, with unique conditions and circumstances and design challenges. The guidelines encourage best practices in park design, custom tailored to the geography and climate of Los Banos.

4.1.1.2 EXISTING CONDITIONS

Scenic Highways

Caltrans has not designated any highway within the city of Los Banos or the EIR Study Area as a State Scenic Highway.¹ The nearest officially designated State Scenic Highway in Merced County is approximately 4 miles west of the city limit.

Visual Character

The visual character of Los Banos is best understood in terms of its natural setting and history. The city is in the northern portion of the San Joaquin Valley within western Merced County near the junction of California State Route (SR-) 152 and Interstate (I-) 5. It is one of the largest cities in Merced County. The agricultural history of Los Banos plays a major role in shaping the existing land use pattern and character. The City's Sphere of influence (SOI) and other areas within Los Banos containing undeveloped and agricultural lands helps distinguish the urbanized city area from other rural county and city areas. The Los Banos Wildlife Area to the northeast and the Gadwall Unit Wildlife Refuge to the east provide a visual connection to the natural world.

Downtown is the geographical, historical, and cultural heart of Los Banos. Located in the area surrounding Main Street, Downtown is compact, walkable, and has a mix of one- and two-story new and old buildings that create and reinforce Los Banos' small-town identity. Downtown features a pedestrian-oriented environment, groundfloor retail and service uses, a traditional street grid, and direct pedestrian and bicycle connections to nearby neighborhoods. Downtown has a historic architectural character, a tight-knit central retail area centered on J Street and 6th Street, the adjacent Rail Trail Corridor, and important local destinations like Wool Growers, Santa Fe Foods, and City Hall. However, the downtown core also has numerous vacant buildings and undeveloped parcels that create gaps in the urban fabric.

Surrounding the downtown core, the predominant land use is low-density suburban neighborhoods with tree-lined streets. Generally, neighborhoods closest to downtown have older homes dating from the 1920s through 1940s and larger, mature trees, while neighborhoods farther from downtown are newer.

¹ California Department of Transportation, 2022, California Scenic Highway Mapping System, <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacc>, accessed on January 30, 2022.

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These neighborhoods radiate outwards from the center of the city, split by two highway commercial corridors running east-west and north-south from one end of the city to the other. These corridors are lined with one- and two-story commercial buildings in a mix of uses and architectural styles, including franchise restaurants, gas stations, and big-box retail with associated parking lots. Throughout the community and along the city limit line, there are vacant parcels, a majority retaining aspects of historic agricultural use. Many of these parcels have been approved for development or are under construction.

The city is surrounded by agricultural land and open space to the north, east, south, and west. East of the city, the land is relatively flat for many miles within the Central Valley, which is dominated by agricultural uses. Several miles to the west of the city, rolling foothills are visible, which define the western edge of the Central Valley from north to south.

The strong connection between Los Banos' agricultural history, its historic downtown, new urban development, and natural setting create a feeling of community, family-oriented, high-quality, and active small town that is proud of its tight-knit community. The City's future vision remains rooted in agriculture while improving people-oriented urban design in new development.

Scenic Corridors and Vistas

Scenic corridors can be defined as an enclosed area of landscape, viewed as a single entity that includes the total field of vision visible from a specific point, or a series of points along a linear transportation route. Public view corridors are areas in which short-range, medium-range, and long-range views are available from publicly accessible viewpoints, such as from county roads or public plazas or sidewalks. A scenic road is defined as a highway, road, drive, or street that, in addition to its transportation function, provides opportunities for the enjoyment of natural and human-made scenic resources. Scenic roads direct views to areas of exceptional beauty, natural resources, landmarks, historic, or cultural interest. There are no designated scenic roads or corridors in Los Banos.

Scenic vistas are generally interpreted as long-range views of a specific scenic feature (e.g., open space lands, mountain ridges, bay, or ocean views). Public views are those that can be seen from vantage points that are publicly accessible, such as streets, freeways, parks, and vista points. These views are generally available to a greater number of persons than private views. Private views are those views that can be seen from vantage points on private property.

Neither the Community Design Standards Handbook nor the existing General Plan designate official scenic view corridors or vistas. Given the flat topography and rural setting of Los Banos, vistas are limited to the surrounding agricultural and open space land within the SOI. The Coast Ranges-Diablo Range west of I-5, roughly 4 miles to the west of the city limit, is the most prominent visual landmark. However, Los Banos is working to transform the SR-152/Pacheco Boulevard corridor into a safe and attractive streetscape for people driving, walking, and bicycling through the Pacheco Boulevard Complete Streets Plan and the proposed project.² There are also natural resources and amenities nearby that could be considered scenic,

² City of Los Banos, 2021, *Pacheco Boulevard Complete Streets Plan*.

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including the Los Banos Wildlife Area and the Gadwall Unit Wildlife Refuge. These areas are outside of the EIR Study Area.

Eastward and westward views of agricultural lands, open spaces, and the Coast Range – Diablo Range are also available in areas of the EIR Study Area that are undeveloped, such as in parks, agricultural areas, and other open spaces.

Light and Glare

Light pollution refers to all forms of unwanted light in the night sky, including glare, light trespass, sky glow, and over-lighting. Views of the night sky are an important part of the natural environment. Excessive light and glare can be visually disruptive to humans and nocturnal animal species. Light pollution in Los Banos is restricted primarily to street lighting along local streets, private property, and to night-time illumination of shopping centers. Light spillage from residential developments is required to be shielded from shining directly onto adjacent residences.³

4.1.2 STANDARDS OF SIGNIFICANCE

As previously stated, there are no State-designated scenic highways in the EIR Study Area, and the nearest State-designated scenic highway is approximately 4 miles to the west of the city limit.⁴ Consequently, the proposed project would not result in significant environmental impacts related to substantial damage to scenic resources within a State scenic highway or within the viewshed of a State scenic highway, and the following standard is not discussed further in this EIR.

- Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Implementation of the proposed project would result in a significant aesthetic impact if it would:

1. Have a substantial adverse effect on a scenic vista.
2. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?
3. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.
4. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to aesthetics.

³ City of Los Banos, 2008. *Community Design Standards*, page 5-10.

⁴ California Department of Transportation, 2022, California Scenic Highway Mapping System, <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>, accessed on January 30, 2022.

4.1.3 IMPACT DISCUSSION

AES-1	Implementation of the proposed project would not have a substantial adverse effect on a scenic vista.
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As discussed in Section 4.1.1.2, *Existing Conditions*, there are no officially designated scenic view corridors or vistas within the EIR Study Area. Therefore, there would be *no impact* and no mitigation measures are required.

Significance without Mitigation: No impact.

AES-2	Implementation of the proposed project would not, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings.
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An “urbanized area,” as defined by CEQA Section 21071, is an incorporated city that either has a population of at least 100,000 persons, or a population of 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons. As described in Chapter 3, *Project Description*, of the Draft EIR, the population of Los Banos was approximately 42,900 as of 2021, and it is not adjacent to another incorporated city. Therefore, this impact analysis addresses whether, for a non-urbanized area, the proposed project would substantially degrade the existing visual character or quality of public views of the site and its surroundings.

The proposed General Plan 2042 designates land for urban uses in areas that are or are near existing agricultural or open space areas, architectural styles, building heights, and new parking and landscaping on parcels throughout the EIR Study Area where new development or redevelopment would occur would affect the overall visual character of the EIR Study Area as a whole and of areas around development sites. This is particularly true for individual neighborhoods of Los Banos, which each have distinct characters and needs. With the expected growth of the city by 2042 and expansion of urban uses, including residential, to accommodate the projected growth, new development could substantially alter the existing rural and agricultural appearance of undeveloped areas. To some people, this change in appearance from agricultural or rural residential landscapes to land developed with neighborhoods, parks, and schools could be considered a deterioration of the visual character, while others may consider it an improvement. However, a change in land use does not necessarily mean degradation of visual character.

Given the flat topography and rural setting of Los Banos, vistas are limited to the surrounding agricultural lands, wildlife areas, or open spaces within the EIR Study Area or the Coast Ranges-Diablo Range west of I-5, which is roughly 4 miles to the west of the city limit. The proposed General Plan 2042 recognizes that natural resources from agricultural lands, wildlife areas, or open spaces laced with creeks and waterways within and surrounding the EIR Study Area provide aesthetic value along with other benefits.

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As new development allowed by the proposed General Plan 2042 is built, the relationship between new development and existing nearby land uses could degrade the visual character if new development is not designed to be sensitive to its setting.

As described in Section 4.1.1.1, *Regulatory Framework*, all potential future development that is subject to design review would be required to adhere to the standards and guidelines of the *Community Design Standards*, which sets minimum standards for architectural features and details; site planning and design, neighborhood and streetscapes, and landscaping to enhance and preserve the visual integrity of Los Banos.

The proposed Land Use (LU) Element and Parks, Open Space, and Conservation (P) Element, contains goals, policies, and actions that require local planning and development decisions to consider impacts that development could have on existing visual character. The proposed goals, policies, and actions promote high-quality design that would preserve and/or enhance visual quality as new development occurs. The following General Plan 2042 goals, policies, and actions would serve to minimize potential adverse impacts on scenic quality.

- **Goal LU-1.** Provide for orderly, well-planned, and balanced development.
 - **Policy LU-P1.2.** Maintain a well-defined compact urban form, with a defined urban growth boundary and development intensities on land designated for urban uses.
 - **Policy LU-P1.3.** Require that any land requested to be annexed be contiguous with the existing city limits, within the urban growth boundary, and within the sphere of influence.
- **Goal LU-2.** Foster neighborhoods with exceptional amenities and design, broad-based opportunity, and a shared sense of identity.
 - **Policy LU-P2.1.** Require new residential neighborhoods to be developed with a consistent aesthetic, appropriate and complementary scales of development, identifiable centers and edges, and well-defined public spaces for recreation and civic activities.
 - **Policy LU-P2.4.** Ensure that the scale, operation, location, and other characteristics of community facilities, including parks, schools, childcare facilities, religious institutions, and other public and quasi-public facilities, enhance the character and quality of neighborhoods.
 - **Policy LU-P2.6.** Require development to follow the adopted Community Design Standards.
 - **Policy LU-P2.7.** Require new residential development adjacent to established neighborhoods to provide a transition zone where the scale, architectural character, pedestrian circulation, and vehicular access routes of both new and old neighborhoods are well integrated.
 - **Policy LU-P2.8.** Provide for a gradual transition in building massing and height between higher-density and lower-density residential areas.
 - **Policy LU-P2.9.** Require buffers of varying size between residential uses and nonresidential uses without restricting pedestrian and bicycle access.
 - **Action LU-A2.5.** Continue to review development applications to confirm consistency with the adopted Community Design Standards.

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- **Goal LU-3.** Provide a clear process for annexation proposals that ensures the proposals meet the requirements and needs of the Los Banos community.
 - **Policy LU-P3.3.** Every Specific Plan shall include the following minimum requirements.
 - g. Design guidelines for all new public and private buildings.
 - h. Design guidelines for all new public and private improvements, including landscaping, park layout and improvement, neighborhood identification signs and monuments, and walls and fences.
- **Goal LU-4.** Protect and enhance Los Banos' image and unique sense of place.
 - **Policy LU-P4-1.** Preserve and build upon Los Banos' historic charm and small-town feel.
 - **Policy LU-P4-2.** Ensure that both new development and exterior remodels of existing buildings are compatible with nearby buildings, public spaces, and cultural/historic resources in scale, orientation, and materials.
 - **Policy LU-P4-4.** Safeguard and leverage Los Banos' agricultural heritage for the benefit of the community.
 - **Policy LU-P4-5.** Require development to transition in density, with lot sizes increasing as a buffer for adjoining rural and agricultural districts.
 - **Policy LU-P4-6.** Require residential developments adjacent to the Central California Irrigation District Irrigation Canal/HG Fawcett Parkway to comply with buffer requirements and provide direct public access where feasible.
 - **Policy LU-P4-9.** Continue to require undergrounding of utilities in all new development.
 - **Policy LU-P4-10.** Require street trees on all public street frontages and adopt street tree guidelines that specify preferred species, spacing requirements, and planting guidelines in coordination with the Urban Tree Foundation.
- **Goal LU-5.** Provide residents with excellent employment and shopping opportunities.
 - **Policy LU-P5.4.** Foster viable, pedestrian-oriented neighborhood centers and strong, visually attractive regional commercial centers with a mix of tenants to serve both local and regional retail needs.
 - **Policy LU-P5.5.** Require pedestrian-oriented design in neighborhood centers, including "street-friendly" designs and amenities for public benefit, such as outdoor seating, plazas, weather protection, and transit waiting areas.
 - **Policy LU-P5.8.** Foster high-quality design and allow secondary uses in Employment Park or industrial areas if they can complement or enhance the primary use.
- **Goal LU-6.** Develop a vibrant, mixed-use Downtown that is the pride of the community.
 - **Policy LU-P6.2.** Set a high standard for Downtown design and amenities to make residents and visitors feel welcome, safe, and engaged.

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- **Action LU-A6.11.** Improve Downtown lighting, potentially including installation of new streetlamps or suspended street lighting, and/or requirements for new development to incorporate pedestrian-scale lighting.
- **Goal LU-7.** Nurture individual neighborhoods by adopting tailored Land Use policies that address the needs of Los Banos' subareas. (*Note. The following policies, while potentially applicable to other areas as well, are written for specific subareas to consider the distinct character and need of each subarea.*)

Pacheco Boulevard Corridor:

- **Policy LU-P7.1.** Enhance aesthetics and urban design along Pacheco Boulevard and improve the safety and experience of people walking and driving along the street consistent with the Pacheco Boulevard Complete Streets Plan.
- **Policy LU-P7.3.** Implement adopted Community Design Standards for buildings on Pacheco Boulevard.

Airport:

- **Policy LU-P7.9.** Establish design guidelines to ensure high-quality design and site planning at the Business Opportunity Area and the airport site.
- **Policy LU-P7.10.** Encourage a campus-like setting for Employment Parks at the airport site, in the Ingomar Grade rail corridor at Johnson Road, and next to Merced Community College, with emphasis on pedestrian connections, streetscape beautification, and compatible building scale where the district connects to surrounding neighborhoods.
- **Goal P-1.** Establish and maintain a high-quality public park system for Los Banos.
 - **Policy P-P1.7:** Develop new parks with high-quality park facilities that are durable and require low maintenance, wherever possible. Retrofit existing parks, as appropriate, to reduce maintenance cost and water use, and to improve safety and aesthetics.

As described in impact discussion AES-1, all potential future development that is subject to design review would be required to adhere to the standards and guidelines of the *Community Design Standards*, which set minimum standards for architectural features and details, site planning and design, neighborhood and streetscapes, and landscaping to enhance and preserve the visual integrity of Los Banos. While development resulting from implementation of General Plan 2042 could potentially impact visual character or quality of public views in the EIR Study Area, such development would be required to adhere to the proposed goals, policies, and actions, with adopted zoning regulations, and with additional adopted standards. These regulations would ensure that new development is designed to be compatible with existing development and uses high-quality building materials and design techniques. Accordingly, impact would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

AES-3 Implementation of the proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Nighttime illumination and glare impacts are the effects of a development's exterior lighting on adjoining uses and areas. Light and glare impacts are determined through a comparison of the existing light sources with the lighting plans or policies incorporated in development proposals.

Currently, the EIR Study Area contains many existing sources of nighttime illumination. These include street and parking area lights, building-mounted lights, illuminated signage, security lighting, and exterior lighting on existing residential, commercial, and institutional buildings. Glare is primarily from building materials and parked cars. Additional on-site light and glare is caused by surrounding land uses and traffic on SR-152 and SR-165.

Implementation of General Plan 2042 would result in potential future development, which would intensify related lighting sources. Future lighting would involve uses similar to the existing downtown, suburban, and rural uses in the EIR Study Area and sources of light and glare associated with these uses would be similar in intensity and nature to the existing source of light and glare. In addition to new building, security, and lighting for parking areas, buildout of the EIR Study Area would also include lighting that would illuminate future development locations. In addition to lighting and glare associated with potential future buildings and lighting infrastructure (e.g., streetlights, commercial signage), the proposed project encourages the use of solar photovoltaic panels, pursuant to the following policy in the Land Use (LU) Element:

- **Policy LU-P4.8.** Facilitate environmentally sensitive development practices by:
 - Exploring and promoting the use of new sustainable building materials, such as mass timber and cross-laminated timber in new development, consistent with State building codes;
 - Encouraging the purchase of locally or regionally available materials, when practical;
 - Encouraging both passive solar design features and the incorporation of solar panels or solar-readiness;
 - Promoting the use of the U.S. Green Building Council's LEED rating system; and
 - Creating Green Building Design Guidelines to be used in the development review process.

The potential for glare impacts as a result of photovoltaic panels would depend on the placement and angle of the panels, and the materials with which the panels are composed.

Nighttime uses associated with potential future development may increase light intensity levels in development areas and may have the potential to affect existing and future nearby sensitive receptors. If lighting in new development is not designed to reduce upwardly directed light, nighttime lighting could obscure views of the night sky or intrude into neighboring properties. Potential future development would also incrementally increase glare due to the new building surfaces, parked cars, and solar panel if exterior glazing (i.e., windows and doors), and site planning (i.e., landscaping and solar panel placement) are not carefully considered.

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The proposed Land Use (LU) Element and Parks, Open Space, and Conservation (P) Element contain goals, policies, and actions that require local planning and development decisions to consider impacts related to an increase in light and glare. The following General Plan 2042 goals, policies, and actions would serve to minimize potential adverse impacts as a result of new sources of light and glare:

- **Goal LU-4.** Protect and enhance Los Banos' image and unique sense of place.
 - **Policy LU-P4.10.** Require street trees on all public street frontages and adopt street tree guidelines that specify preferred species, spacing requirements, and planting guidelines in coordination with the Urban Tree Foundation.
 - **Policy LU-P4.12.** Encourage lighting for safety and security while preventing excessive light spillover and glare. Lighting should complement building and landscape design.
 - **Policy LU-P4.13.** Require lighting plans for projects proposing exterior lighting. The design review process should be used to evaluate lighting for safety, consistency with dark sky objectives, and potential mitigation to reduce negative impacts on nearby properties.
 - **Policy LU-P4.14.** Continue efforts to improve street lighting, staying mindful of the need to balance financial, public safety, and environmental objectives.
 - **Action LU-A4.1.** Adopt a dark sky ordinance, including lighting standards and enforcement provisions that reduce light pollution. In the interim, refer to guidelines from the International Dark Sky Association during the review of major projects involving night lighting.
- **Goal LU-6.** Develop a vibrant, mixed-use Downtown that is the pride of the community.
 - **Action LU-A6.11.** Improve Downtown lighting, potentially including installation of new streetlamps or suspended street lighting, and/or requirements for new development to incorporate pedestrian-scale lighting.
 - **Action LU-A6.13.** Improve sidewalk maintenance in the Downtown and explore widening key sidewalks to provide space for outdoor seating and tree plantings.
- **Goal P-5.** Protect and restore open space resources of Los Banos.
 - **Policy P-P5.3.** Require the preservation of mature trees and encourage the planting of drought-resistant street and shade trees in all new developments.
 - **Policy P-P5-7.** Reduce light pollution and other adverse effects associated with night lighting from streets and urban uses.

As described in Section 4.1.1.1, *Regulatory Framework*, besides general best management practices that require lighting that is context sensitive in style and intensity required under CALGreen, potential future development, including the installation of solar panels would have to comply with the City's lighting standards in the LPMC and the *Community Design Standards*, and other adopted plans (e.g., *Parks Master Plan*). Potential projects that are subject to Design Review would be reviewed for consistency with the lighting standards regarding the appropriate use of lighting and avoidance of glare from lighting and other sources. Compliance with these standards to reduce light spill and glare combined with the proposed General Plan 2042 goals, policies, and actions would ensure potential future development does not generate excessive light levels or glare. Therefore, the lighting and glare from implementation of the

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proposed General Plan 2042 would not substantially increase nighttime light or glare within the EIR Study Area or its surroundings. Impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

AES-4	Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to aesthetics.
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As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, the cumulative setting includes growth within the EIR Study Area in combination with projected growth in the rest of Merced County and the surrounding region. The cumulative setting for visual impacts includes potential future development under the proposed General Plan 2042, combined with effects of development on lands adjacent to the EIR Study Area. Significant impacts, including those associated with scenic resources, visual character, and increased light and glare would generally be site-specific and would not contribute to cumulative impacts after implementation of the General Plan 2042 goals, policies, and actions.

There are no designated scenic vistas within the EIR Study Area. Therefore, the proposed General Plan 2042 would not have the potential to affect scenic vistas or contribute to cumulative impacts to scenic vistas.

Some potential future development from implementation of the proposed General Plan 2042 would have the potential to change the visual character where currently undeveloped or agricultural lands would be designated for urban uses. However, the policies of the proposed General Plan would require that any land requested to be annexed be contiguous with the existing city limits, within the Urban Growth Boundary, and within the Sphere of Influence. The proposed General Plan 2042 includes goals, policies, and actions to protect visual character.

Individual developments allowed under the proposed project would continue to be subject to General Plan goals, policies, and actions and the LBMC and *Community Design Standards* provisions related to aesthetics, including potential project-level design review requirements. Additionally, as part of the approval process, potential new development would be subject to design review, as applicable, to ensure that the development is aesthetically pleasing and compatible with adjoining land uses. With the development review mechanisms in place, approved future development under the proposed project would not create substantial impacts to visual resources in Los Banos or the surrounding communities. Therefore, the proposed project would not result in a cumulatively considerable impact to aesthetic resources and cumulative impacts would be *less than significant*. No mitigation measures are required.

Significance without Mitigation: Less than significant.

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4.2 AGRICULTURAL RESOURCES

This chapter describes the potential impacts to agriculture and forestry resources associated with the adoption and implementation of the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential agricultural resource impacts, and identifies General Plan policies that could minimize any potentially significant impacts.

4.2.1 ENVIRONMENTAL SETTING

4.2.1.1 REGULATORY FRAMEWORK

This section summarizes existing state and local laws pertaining to agriculture in the City of Los Banos.

State Regulations

Farmland Mapping and Monitoring Program

Within the California Natural Resources Agency, the State Department of Conservation provides technical services and information to promote informed land use decisions and sound management of the state's natural resources. As part of this duty, the Department of Conservation manages the Farmland Mapping and Monitoring Program (FMMP), which supports agriculture throughout California by developing maps and statistical data for analyzing land use impacts to farmland. The FMMP publishes a field report for each county about every two years. The FMMP categorizes land by agricultural production potential according to the following classifications:¹

- **Prime Farmland** has the best combination of physical and chemical features able to sustain long-term agricultural production. Prime farmland has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agriculture production at some time during the four years prior to the mapping date.
- **Farmland of Statewide Importance** is similar to Prime Farmland, but with minor shortcomings, such as steeper slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **Unique Farmland** consists of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been farmed at some time during the four years prior to the mapping date.
- **Farmland of Local Importance** consists of all farmable land not meeting the definitions of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. This includes land that is or has been used for irrigated pasture, dryland farming, confined livestock or dairy facilities, aquaculture,

¹ State of California Department of Conservation, Important Farmland Categories, <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx>, accessed April 5, 2022.

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poultry facilities, and dry grazing. It also includes soils previously designated by soil characteristics as prime farmland, farmland of statewide importance, and unique farmland that has since become idle.

- **Grazing Land** is the land on which the existing vegetation is suited to the grazing of livestock.

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.

California Forest Legacy Program Act of 2007

The California Forest Legacy Program Act of 2007 is codified in Public Resources Code (PRC) Sections 12220 through 12277. Section 12220(g) of the PRC defines “forest land” for the purposes of the California Environmental Quality Act (CEQA). According to PRC Section 12220(g), forest land is land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water-quality, recreation, and other public benefits.

California Timberland Productivity Act of 1982

The California Timberland Productivity Act of 1982 is intended to realize the productive potential of the forest resources and timberlands of the state, and to provide a favorable climate for long-term investment in forest resources. This act is codified in Government Code Sections 51110 to 51104. Section 51104(g) of the Government Code lists the following definitions of timber resources, which may be used in city and county general plans.

- **Timber** means trees of any species maintained for eventual harvest for forestations production purposes, whether planted or of natural growth, standing or down, on privately or publicly owned land, including Christmas trees, but does not mean nursery stock.
- **Timberland** means privately owned land, or land acquired for State forest purposes, which is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, and which is capable of growing an average annual volume of wood fiber of at least 15 cubic feet per acre.
- **Timberland Production Zone** or “TPZ” means an area that has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h). With respect to the general plans of cities and counties, Timberland Preserve Zone means Timberland Production Zone.

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Regional Regulations

Merced County General Plan

Merced County has a significant agricultural economy and upbringing, with more than 90 percent of the entire land area being designated farmland.² The *2030 Merced County General Plan* is a comprehensive long-range guide for land in the unincorporated portions of the county, including land directly in the surrounding periphery of the Los Banos city limit. The plan was adopted in 2013. While the land within the city limit of Los Banos is regulated by the City's general plan, the unincorporated areas outside of the city limit is governed by the County General Plan. The current County General Plan land use designations in the proposed Sphere of Influence (SOI) is Agricultural.³ This land use designation provides for cultivated agricultural practices that rely on good soil quality, adequate water availability, and minimal slopes, and has a maximum dwelling unit per gross acre ratio of 0.025.

The County General Plan Agricultural Resources Element (AG) includes, among others, the following goals and policies regarding agricultural resources:⁴

- **Goal AG-1.** Maintain the financial viability of the agricultural sector by encouraging expansion of commercial agriculture, attracting new agricultural support and value-added industries, and promoting locally-grown commodity sales.
 - **Policy AG-1.1. Merced County Farmers Competitive Edge.** Promote local agricultural operations and businesses that provide a competitive edge to Merced County farmers and ranchers.
 - **Policy AG-1.2. Agricultural Industry Expansion.** Establish programs and coordinate with local, regional, and State agencies to encourage new economically, socially, and environmentally sustainable agricultural industries in Merced County.
 - **Policy AG-1.3. Promoting Local Agriculture.** Establish, as part of the County's economic development strategy, programs that promote and maintain local commercial agriculture.
- **Goal AG-2.** Ensure the long-term preservation and conservation of land used for productive agriculture, potentially-productive agricultural land, and agricultural-support facilities.
 - **Policy AG-2.1. Agricultural Land Preservation.** Protect agriculturally-designated areas and direct urban growth away from productive agricultural lands into cities, urban communities, and new towns.
 - **Policy AG-2.2. Agricultural Land Mitigation.** Protect productive agricultural areas from conversion to non-agricultural uses by establishing and implementing an agricultural mitigation program in cooperation with the six cities in Merced County, with consistent standards for County and City governments, that matches acres converted with farmland acres preserved at a 1:1 ratio. In addition, the Land Evaluation and Site Assessment Model (LESA model) may be used to determine whether the conservation land is of equal or greater value than the land being converted.

² Merced County, 2013. 2030 Merced County General Plan, Agricultural Element, page AG-1.

³ Merced County, 2010. 2030 Merced County General Plan Land Use Element, page LU-3, General Plan Land Use Policy Diagram. https://web2.co.merced.ca.us/pdfs/planning/generalplan/DraftGP/MCGPU_2030/MCGPU_2030GP_Part_II-3_LAND_USE_PRD_2012-11-30sm.pdf, accessed March 14, 2022.

⁴ Merced County, 2013. 2030 Merced County General Plan, Agricultural Element.

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- **Policy AG-2.3. New Development.** Formalize County-City agreements emphasizing concentration of new development in cities that include agricultural mitigation and avoidance of productive agricultural land conversion.
- **Policy AG-2.4. Preservation Programs.** Encourage property owner participation in programs that preserve farmland, including the Williamson Act, conservation easements, and USDA-funded conservation practices.
- **Policy AG-2.5. Williamson Act Minimum Parcel Size.** Encourage larger parcel size minimums (40 or more acres) and/or evidence of commercial agricultural use for entering new Williamson Act contracts.
- **Policy AG-2.6. Williamson Act Contracts Non-Renewal on Small Parcels.** Remove (non-renew) current Williamson Act contracts on small parcels not devoted to commercial agriculture.
- **Policy AG-2.7. Merced County Agricultural Preserve Consolidation.** Remove land not under Williamson Act contracts from the Merced County Agriculture Preserve by redrawing the current boundary of the Agricultural Preserve to create one or a series of smaller preserves aligned with contracted land.
- **Policy AG-2.8. Conservation Easements.** Support the efforts of public, private, and non-profit organizations to preserve agricultural areas in the County through dedicated conservation easements, and range land held as environmental mitigation.
- **Policy AG-2.9. Infrastructure Extension.** Oppose the extension of urban services, such as sewer lines, water lines, or other urban infrastructure, into areas designated for agricultural use, unless necessary to protect public health, safety, and welfare.
- **Policy AG-2.10. Fiscal Impact Minimization.** Minimize the fiscal impact to the County from State and Federal programs which result in the purchase of property in fee title through the use of mutual aid agreements, required subvention payments, and any other available means.
- **Policy AG-2.11. Preservation Collaboration.** Collaborate with landowners, cities, State and Federal agencies, colleges, universities, stakeholders, and community-based organizations to continue and expand agricultural preservation in the County.
- **Policy AG-2.12. Antiquated Subdivisions.** Encourage the voluntary merger of antiquated subdivision lots that conflict with adjacent agricultural uses, and continue to require environmental review of permits that could result in adverse environmental impacts in agricultural and rural areas, including traffic generation, groundwater contamination, stormwater drainage disposal, and air quality deterioration.
- **Policy AG-2.13. Minimum Agricultural Parcel Size Requirements.** Require 40-acre minimum permitted parcel size in areas designated Agricultural to discourage land divisions for rural residential purposes and maintain parcels large enough for efficient commercial agriculture production. Require 160-acre minimum permitted parcel size in areas designated Foothill Pasture and in grassland areas.
- **Policy AG-2.14. Viability of Smaller Parcels.** Require applicants seeking to divide agriculturally-zoned parcels to demonstrate the continued viability of lots less than 40 acres for commercial agriculture, using specific standards (i.e., access to agricultural water, joint farm management, access for aerial spraying, size viability for specific commodities) and farm management plans.
- **Policy AG-2.15. Merced County Agriculture Preserve Consolidation.** Modify the Merced County Agricultural Preserve to be consistent with State Subdivision Map Act and Williamson act rules for

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allowing parcels less than 10 acres for a limited number of circumstances authorized as exceptions in the County Zoning Code and consistent with State law.

- **Policy AG-2.16. High Speed Rail Line Location.** Coordinate with the California High Speed Rail Authority to locate the high-speed rail lines along existing major transportation corridors, such as State Routes 99 or 152, to minimize the conversion of productive agricultural land to non-agricultural uses.
- **Policy AG-2.17. Continued Access to Surface Water for Subdivided Parcels.** Where requested by the water purveyor, when agricultural parcels are subdivided and the original parcel (prior to subdivision) has access to surface water (such as from an irrigation or water district facility), require that an easement be provided over the parcel(s) that has/have access to the surface water source to the remaining parcel(s) that will not be adjacent to or near the surface water source. The easement should specify the purpose of the easement and whose responsibility it is to maintain private water conveyance facilities within said easement.
- **Goal AG-3.** Minimize conflicts between productive agricultural areas and urban land uses, and discourage the parcelization and conversion of large agricultural holdings into rural residential parcels or urban uses.
 - **Policy AG-3.2. Agricultural Buffer.** In consultation with the Merced County Agricultural Commissioner, require buffers between proposed non-agricultural uses and adjacent productive agricultural operations to protect farms, dairies, and agricultural-related production facilities from conflicts with non-agricultural uses, specifically rural residences and urban area residential development.
 - **Policy AG-3.4. Residential Buffers from Agriculture.** Require a minimum 200-foot buffer between new residential development within designated urban areas and existing agricultural operations, and establish design/maintenance guidelines for developers and property owners.
 - **Policy AG-3.5. Home Site Clustering.** Require clustering of homes on agricultural parcels to minimize interference with agricultural operations.
 - **Policy AG-3.7. Public Facility Locations.** Discourage public agencies from locating facilities, especially schools, in existing agricultural areas.
 - **Policy AG-3.11. Solar and Wind Energy Production Facilities.** Encourage the installation of solar and wind energy production facilities in agricultural areas so long as they do not result in a tax burden to the County, do not result in permanent water transfers off of productive agricultural land, do not require cancellation of Williamson Act contracts, and do not conflict with sensitive habitats or other biological resources. In addition, approval of such facilities shall require dedications of agricultural land and habitat mitigation when impacts to these resources have been determined to be significant pursuant to CEQA, measures to control erosion, and assurances for financing decommissioning activities.
- **Goal AG-4.** Anticipate the future needs of the agricultural sector in order to improve agricultural competitiveness, efficiency, and employment.
- **Goal AG-5.** Further develop and expand the agricultural tourism and recreation industry in Merced County.

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LAFCO Agricultural Mitigation Policies

The Merced County Local Agency Formation Commission (LAFCO) is an independent agency created by the State to promote the wise use of land resources while providing for the present and future needs of a community. As part of this charge, the Merced County LAFCO establishes agricultural mitigation policies and provides guidance to property owners with LAFCO applications who propose the conversion of prime agricultural lands (as defined by LAFCO) into non-agricultural uses. The Merced County LAFCO's main objective is to uphold the following four strategic goals; (1) to create planned, well ordered, efficient development patterns; (2) ensure all Governmental services are delivered efficiently and effectively; (3) the need to provide for urban development establishes a balance between conservation of open space and prime agricultural lands; and (4) urban land patterns maximize the opportunity for local jurisdiction to provide their fair share of regional housing needs for all income levels.

Ultimately, the Merced County LAFCO is responsible for determining any changes to a city's boundaries and or a city's SOI. Objective I.A of the Merced County LAFCO policies is that prime agricultural land is protected and conserved while ensuring there are adequate areas for efficient and orderly growth. Policies under this objective include the following:⁵

- **Policy 1.** In determining whether a City or Special District Annexation would affect prime agricultural land, the Commission shall apply the definition of "prime agricultural land" established under Section 56064 of the Cortese/Knox/Hertzberg Reorganization Act of 2000: Land that has not been developed for a use other than an agricultural use and that meets any of the following qualifications:
 - a. Land that, if irrigated, qualifies for rating as Class I or Class II in the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service land use capability classification, whether or not land is actually irrigated, provide that irrigation is feasible.
 - b. Land that qualifies for rating 80 through 100 Stories Index Rating.
 - c. Land that supports livestock used for the production of foods and fiber and that has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the USDA.
 - d. Land planted with fruit or nut-bearing, vines, bushes, or crops that have a nonbearing period of less than five years and that will return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than four hundred dollars per acre.
 - e. Land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than four hundred dollars per acre for three of the previous five calendar years.
- **Policy 2.** At the time of adoption of a sphere of influence for a City or urban service district, efforts to direct growth away from large concentrations of prime agricultural land shall be demonstrated, recognizing that some conversion of prime lands may be inevitable.

⁵ Merced County Local Agency Formation Commission. Policies and Procedures, Chapter II: Merced County LAFCO Policies. <https://www.lafcomerced.org/pdfs/policyprocedure2.pdf>, accessed February 21, 2022.

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Merced County Agricultural Mitigation Ordinance

In 2016, Merced County adopted an agricultural mitigation ordinance under the Merced County Code Title 9, *General Health and Safety*, Section 9.30, *Agricultural Mitigation*. This mitigation ordinance outlines the necessary procedures for mitigating the loss of agricultural land as future development takes place within Merced County. The ordinance serves as a guide to help implement the *2030 Merced County General Plan* agricultural policies and sets an established network to work cooperatively with Cities within the County and the Merced County LAFCO to encourage cities in Merced County to adopt agricultural preservation policies.

4.2.1.2 EXISTING CONDITIONS

Regional Agriculture

Agricultural commodities in Merced County grossed over \$3.4 billion in 2020, a 7 percent increase from 2019. Milk has been the top-valued agricultural commodity in the county for over 10 years, with a 2020 value of over \$1 billion. Other top-valued crops in Merced County, in order of value, are almonds, chickens, sweet potatoes, cattle and calves, tomatoes, silage corn, miscellaneous vegetables, nursery products, and eggs.⁶

Important Farmland

Land use for agricultural purposes can be found within the city limit and within the proposed SOI. The Environmental Impact Report (EIR) Study Area includes a variety of California Important Farmland including Prime Farmland, Farmland of Statewide Importance, and Unique Farmland, as classified by the Department of Conservation. The majority of land within the city limit is urban and built-up land. Most farmland is located outside of the city limit and within the SOI. See Figure 4.2-1, *Agricultural and Working Farmland*. Table 4.2-1, *Agricultural Land Use Designations the EIR Study Area*, lists the number of acres associated with each farmland classification within the city limit and SOI.

TABLE 4.2-1 AGRICULTURAL LAND USE DESIGNATIONS IN THE EIR STUDY AREA

Farmland Classification	Acres				Total
	City Limit	+	Proposed Sphere of Influence	=	
Prime Farmland	759		4,495		5,254
Farmland of Statewide Importance	32		1,285		1,317
Farmland of Local Importance	492		145		637
Unique Farmland	99		797		895
Grazing Land	356		174		530
Total	1,737		6,896		8,633

Source: Department of Conservation, Farmland Mapping and Monitoring Program GIS data, 2018.

⁶ Merced County Department of Agriculture, 2020 Report on Agriculture. Accessed online at <https://www.co.merced.ca.us/ArchiveCenter/ViewFile/Item/885> on May 4, 2022.

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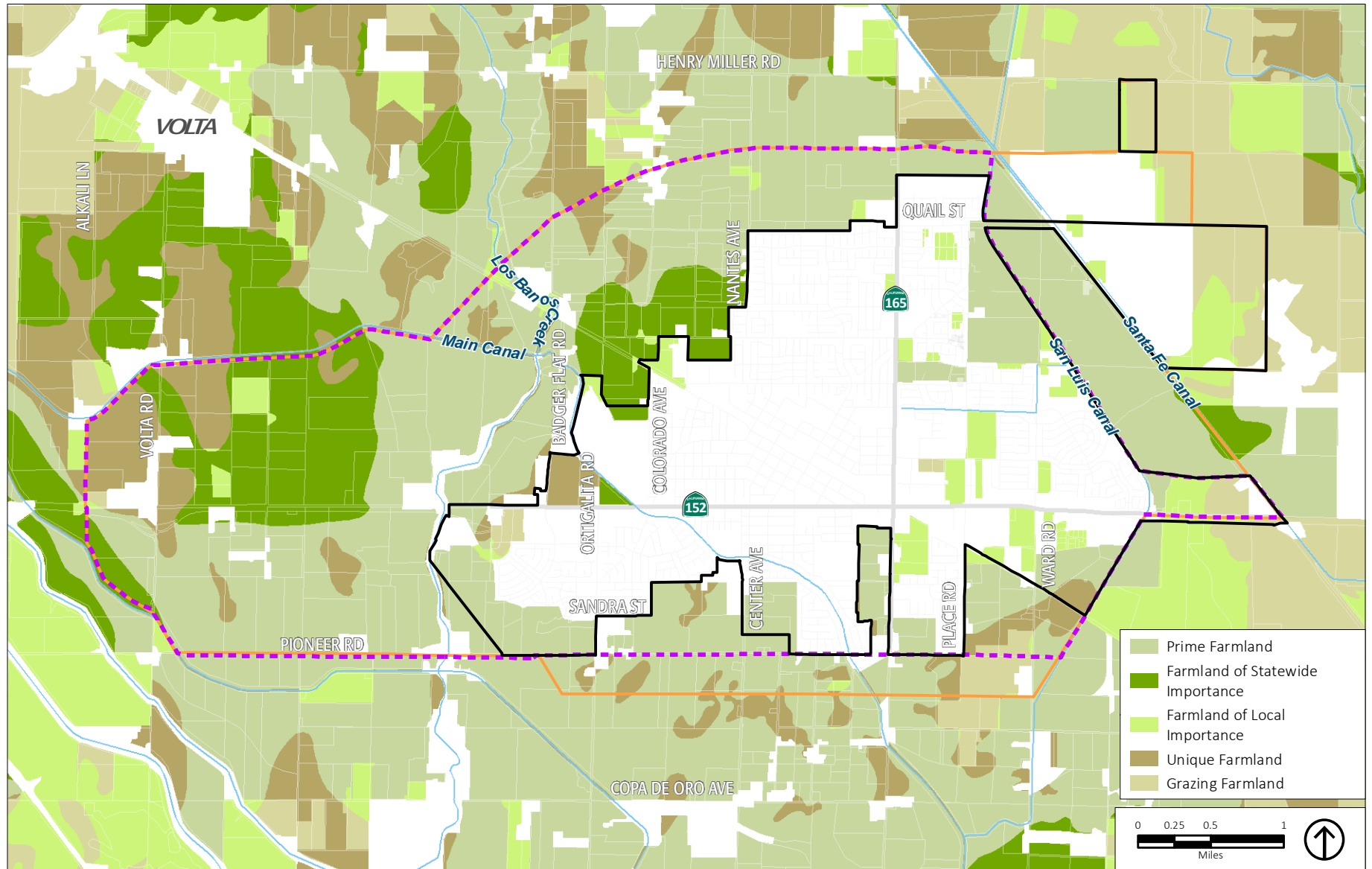


Figure 4.2-1
Agricultural and Working Farmlands

City Limit
 Proposed Urban Growth Boundary (UGB)
 Proposed Sphere of Influence (SOI)

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It should be noted that the Department of Conservation's data reflects conditions as of 2018. Since the time the department published the data, some limited pieces of land may have been developed or may now be under development review. Nevertheless, the data provide a broad picture of the agricultural resources within and surrounding Los Banos today.

Williamson Act Contracts

There are active Williamson Act contracts on both Prime and non-Prime Farmland within the EIR Study Area. These areas are shown in Figure 4.2-2, *Williamson Act Lands*. There are a total of 319 acres of land that are under Williamson Act contracts within the EIR Study Area; all of these lands are within the proposed SOI and outside of the city limit.

Forestry Resources

There are no portions of the EIR Study Area that contain forest or timber resources or are zoned as such. No further discussion of this topic is required.

4.2.2 STANDARDS OF SIGNIFICANCE

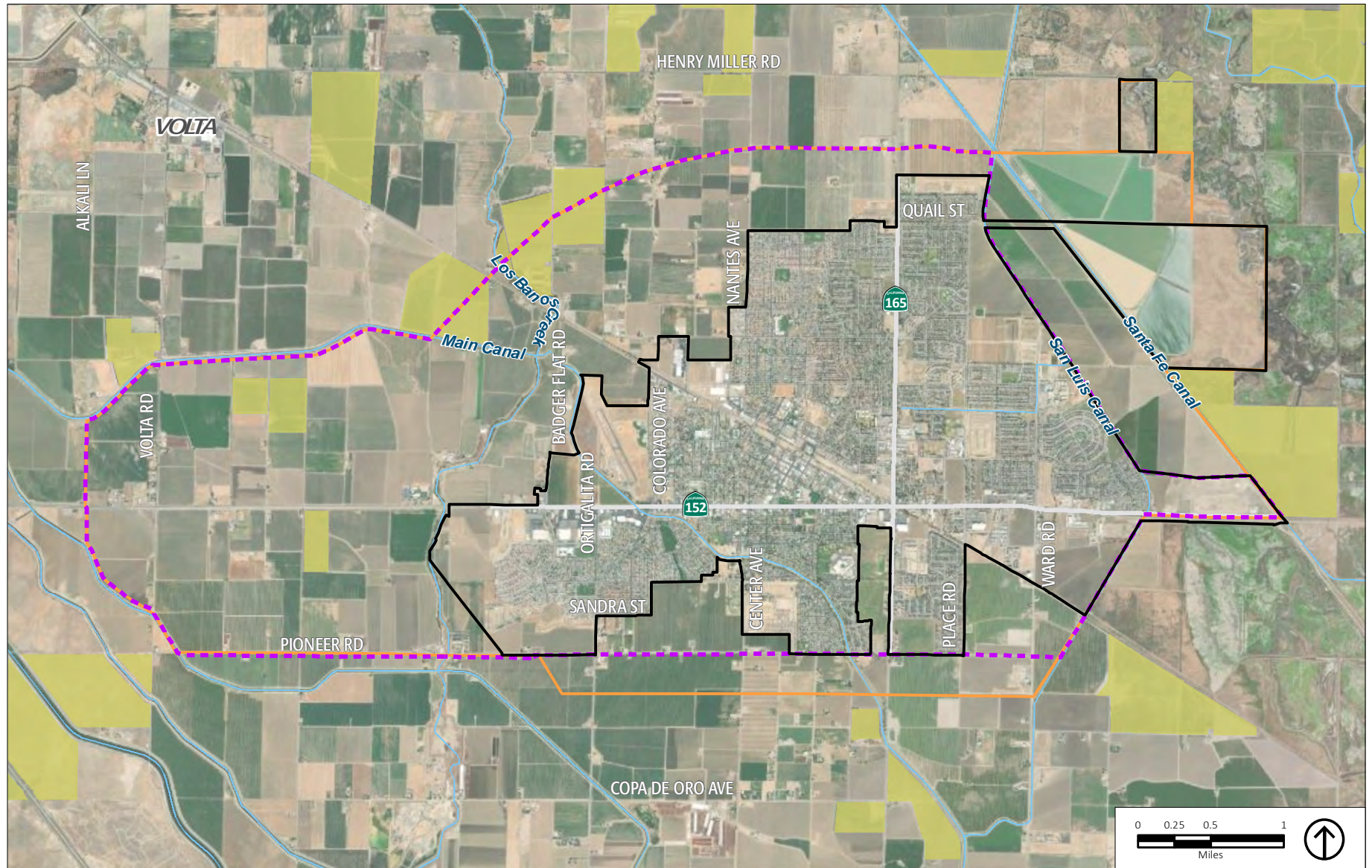
The Los Banos Municipal Code (LBMC) does not contain a zoning district for forest land or timberland production. Further, there are no State or national forest lands in the EIR Study Area. Consequently, there would be no impacts to forestry resources, and the following standards are not discussed further in this EIR:

- Conflict with existing zoning for, or cause rezoning of, forestland (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)).
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use.

Implementation of the proposed project would result in a significant impact to agricultural resources if it would:

1. 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.
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract.
3. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.
4. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to agricultural resources.

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Source: Merced County, 2019; PlaceWorks, 2022.

City Limit
 Proposed Urban Growth Boundary (UGB)
 Proposed Sphere of Influence (SOI)
 Williamson Act Lands

PLACEWORKS

Figure 4.2-2
Williamson Act Lands

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4.2.3 IMPACT DISCUSSION

AG-1 Implementation of the proposed project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

As shown in Table 4.2-1, *Agricultural Lands within the EIR Study Area*, the EIR Study Area contains 5,254 acres of Prime Farmland, 1,317 acres of Farmland of Statewide Importance, and 895 acres of Unique Farmland. As shown on Figure 4.2-1, *Agricultural and Working Farmlands*, the majority of the lands within the proposed SOI and outside of the city limit are designated Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. As shown in Table 4.2-2, *Qualifying Farmland Potentially Converted to Other Uses at General Plan Buildout*, with buildout of the proposed General Plan 2042, there could be a reduction of 4,892 acres of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses.

TABLE 4.2-2 QUALIFYING FARMLAND POTENTIALLY CONVERTED TO OTHER USES AT GENERAL PLAN BUILDOUT

Farmland Classification	Existing Acres				Future Acres	
	City Limit	+	Proposed Sphere of Influence	= Total	Potential to be Converted	Total acres at Buildout
Prime Farmland	759		4,495	5,254	3,095	2,159
Farmland of Statewide Importance	32		1,285	1,317	1,042	275
Unique Farmland	99		797	895	691	204
Total	1,737		6,896	8,633	4,892	683

Source: Department of Conservation, Farmland Mapping and Monitoring Program GIS data, 2018.

Because the standard of significance is the loss of any qualifying farmlands (Prime Farmland, Unique Farmland, or Farmland of Statewide Importance), any conversion of the 4,892 acres or qualifying farmlands to non-agricultural lands would constitute a significant impact under CEQA.

The City of Los Banos maintains its Urban Growth Boundary (UGB) in part to differentiate land intended for future urbanization from land intended to remain rural. Figure 3-1, *Existing Land Uses*, in the proposed General Plan shows the existing uses on parcels within the EIR Study Area. As shown, the majority of the land surrounding the city limit is currently used for agricultural purposes. This land is currently outside of the city limits in unincorporated Merced County and therefore subject to County land use regulations. The current County General Plan land use designations in the proposed SOI is Agricultural.⁷ However, Figure 3-

⁷ Merced County, 2010. 2030 Merced County General Plan Land Use Element, page LU-3, General Plan Land Use Policy Diagram. https://web2.co.merced.ca.us/pdfs/planning/generalplan/DraftGP/MCGPU_2030/MCGPU_2030GP_Part_II-3_LAND_USE_PRD_2012-11-30sm.pdf, accessed March 14, 2022.

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6, *General Plan 2042 Land Use Map*, in Chapter 3, *Project Description*, of this Draft EIR, shows that the proposed City of Los Banos General Plan designates the majority of land currently used for agricultural purposes within the proposed SOI for non-agricultural uses, including for residential, commercial, office, industrial, and institutional uses. For those acres within the UGB, this conversion could be expected to occur over the lifetime of the proposed project as land is annexed into the City and developed in accordance with the proposed General Plan. The largest concentrations of agricultural land that would be converted to non-agricultural land through implementation of the proposed project are to the west of the city limit.

The General Plan 2042 Land Use (LU) Element; Parks, Open Space, and Conservation (P) Element; and Public Facilities and Services (PFS) Element contain goals, policies, and actions that require local planning and development decisions to consider impacts that development could have on existing agricultural land. The following General Plan 2042 goals, policies, and actions would serve to minimize potential adverse impacts related to the loss of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland.

- **Goal LU-1.** Provide for orderly, well-planned, and balanced development.
 - **Policy LU-P1.2.** Maintain a well-defined compact urban form, with a defined urban growth boundary and development intensities on land designated for urban uses.
 - **Policy LU-P1.3.** Require that any land requested to be annexed be contiguous with the existing city limits, within the urban growth boundary, and within the sphere of influence.
 - **Policy LU-P1.4.** Require lands outside, but adjacent to, the current city limits to annex to the City of Los Banos prior to approval of new development or provision of any City services.
 - **Policy LU-P1.9.** Coordinate land use planning efforts between City departments and with local institutions and regional agencies.
 - **Action LU-A1.4.** Regularly evaluate and implement adjustments to the City's fee structure to encourage development in areas where infrastructure is already present and ensure that non-infill development pays its fair share of anticipated citywide capital facilities and operational costs.
- **Goal LU-3.** Provide a clear process for annexation proposals that ensures the proposals meet the requirements and needs of the Los Banos community.
 - **Policy LU-3.1.** Annexation proposals are required to meet the following basic requirements:
 - a. **Location.** Require that any land requested to be annexed be contiguous with the existing City limits, within the urban growth boundary, and at least 75 percent within the sphere of influence.
 - b. **Consistency.** Require that any land requested to be annexed is consistent with the policies of the City's General Plan and all appropriate City development standards.
 - c. **Timing of Development.** Require lands outside, but adjacent to, the current city limits to annex to the City of Los Banos prior to approval of new development.
 - d. **Utilities.** Require areas annexed to the City to be served by City utilities. Prohibit new wells and septic systems to serve urban development within the city limits. Conversely, do not provide City utility services, water, and sanitary sewer to new development outside of the city

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limits unless annexation is approved. Prior to annexation, the City must find that adequate water supply and service and wastewater treatment and disposal capacity can be provided. Existing water supplies must remain with the land and be transferred to the City upon annexation approval.

- e. **Public Safety.** Prior to annexation, the City must find that adequate police, fire, and other public safety services can be provided.
 - f. **Mitigation.** Require that new development projects include full mitigation of impacts to parks and recreational services, police and fire services, and public infrastructure, both on- and off-site.
- **Goal LU-4.** Protect and enhance Los Banos' image and unique sense of place.
 - **Policy LU-P4.5.** Require development to transition in density, with lot sizes increasing to the south as a buffer for the adjoining rural and agricultural districts.
 - **Goal LU-6.** Develop a vibrant, mixed-use Downtown that is the pride of the community.
 - **Policy LU-P6.4.** Incentivize and encourage infill development, adaptive reuse of structures, and development on underutilized land to serve a variety of uses.
 - **Action LU-A6.3.** Target individual vacant and underutilized infill sites that are not part of larger neighborhood developments for additional high-density residential development.
 - **Goal P-5.** Protect and restore open space resources of Los Banos.
 - **Action P-A5.1.** Establish priorities for open space preservation and acquisition based on an evaluation of: Significant natural areas that are historically, ecologically, or scientifically unique or are outstanding, important or threatened; wildlife habitats and fragile ecosystems in need of protection; watersheds or significant water recharge areas; open space for safety and public health; lands suitable for recreation such as biking, photography or nature study; preserving or restoring natural features and ecosystem processes that can increase resiliency to climate change; and land suitable for agricultural production.
 - **Goal P-7.** Protect and preserve agricultural resources around Los Banos.
 - **Policy P-P7.1.** Promote preservation of agriculture within the Planning Area.
 - **Policy P-P7.2.** Work with the County and with the Grassland Water District to preserve agricultural uses outside the urban growth boundary.
 - **Policy P-P7.3.** Support agricultural conservation easement programs managed by other public, private, and non-profit organizations.
 - **Policy P-P7.4.** Require developers of residential developments adjoining agricultural land to provide, fund, and maintain a physical buffer to ensure that agricultural practices will not be adversely affected.
 - **Policy P-P7.6.** Require applicants of annexation proposals that would result in the conversion of 50 or more acres of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland to do the following:

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- Prepare an inventory of the vacant land within the city limit zoned for similar uses as the proposed annexation, and an analysis of the probable build-out time for that quantity of vacant land given past development rates. When the inventory includes vacant land to support more than 12 years of development (10-year inventory plus an additional two years to account for annexation processes), the applicant shall demonstrate to the City's satisfaction why the existing vacant land within the city limits is not suitable for the proposed development.
- Prepare a phasing timeline that prioritizes development of lands with lesser farmland value, lands immediately adjacent to existing development within the city, lands with prior disturbance of farmland, lands that do not encroach beyond major barriers into areas of farmland not already partially developed, and/or lands that do not require cancellation or non-renewal of a Williamson Act contract.
- Use major land features as boundaries, including roads, canals, creeks, or highway plan lines, so that annexation boundaries are physically separated from remaining agricultural land beyond the annexation area, when appropriate.
- **Action P-A7.1.** Explore feasible and implementable policies and mitigation measures to address impacts to agricultural land, including:
 - Participating in a County-established agricultural mitigation program that preserves one acre of farmland for every acre converted.
 - Establishing or participating in a program to restore or improve land in Merced County to a level that meets the criteria of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, in order to create new farmland in addition to preserving existing farmland.
 - Establishing a local right-to-farm ordinance.
- **Action P-A7.2.** Establish and maintain a Grasslands Resources Overlay Zone (GROZ) for the inter-canal area between the San Luis Canal and the Santa Fe Canal north of the city limit where lands within the GROZ (allowing for the bypass) shall remain in agricultural and open space uses.
- **Goal PFS-3.** Ensure a resilient supply of fresh, safe water to serve existing and future needs of the city.
 - **Policy PFS-P3.6.** Attempt to retain water rights in all annexed areas so that agricultural production can continue on annexed land until the time of development. These rights will then be made available to meet urban water demands, or where feasible, be exchanged for ground water recharge opportunities as part of a comprehensive water recharge program.

In addition to the goals, policies, and actions of the General Plan 2042, land use designations in the Land Use Element increase allowed densities above what is currently permitted. Specifically, the maximum density for Medium-Density Residential would increase from 18 to 20 dwelling units per acre, the minimum density for High-Density Residential would increase from 12 to 20 dwelling units per acre, and the maximum density for Downtown Mixed Use would increase from 18 to 30 dwelling units per acre. Allowing greater residential density within these designations will help to provide additional residential capacity within the already-urbanized area of Los Banos, absorbing a greater proportion of residential demand through infill development and reducing pressure on agricultural land to convert to residential use.

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While these General Plan 2042 goals, actions, and policies and increased density on specific land use designations would reduce potential impacts related to the conversion of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, and as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, since the proposed General Plan would designate a majority of these lands to non-agricultural uses, a *significant* impact would result.

Impact AG-1: Implementation of the General Plan 2042 would result in the conversion of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland land to non-agricultural land uses.

Mitigation Measures Considered. In compliance with CEQA, “each public agency shall mitigate or avoid the significant effects on the environment of the project it carries out or approves whenever it is feasible to do so.”⁸ The term “feasible” is defined in CEQA to mean, “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.”⁹ CEQA Guidelines Section 15370 defines “mitigation” as including: (1) avoiding the impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of an action and its implementation; (3) rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and (5) compensating for the impact by replacing or providing substitute resources or environments. The following is a brief discussion of the mitigation measures considered for mitigating or avoiding the impact of the conversion of agricultural lands to other uses and their infeasibility. However, as shown, no feasible mitigation measures are available that would reduce the agricultural resource impact to less-than-significant levels.

- **Replacement of Agricultural Resources.** This measure would replace the existing agricultural use with the same use on other property that is not currently used for agriculture. From a statewide perspective, the replacement of farmland means that there will be no net loss of farmland in the state. However, farmlands of concern would still be developed. There is limited undeveloped land within the proposed SOI that is not currently designated as agricultural, restricting the amount of agricultural land that would be able to be replaced elsewhere in the area, and thus conversion of these lands would be insufficient to achieve no net loss. Moreover, even if adequate land could be identified to achieve no net loss, the challenges of creating the soil, irrigation, climatic, and economic conditions that are required for productive farmland (i.e., that achieves the same Important Farmland, Farmland of Statewide Importance, or Unique Farmland status) are significant and there would be no guarantee that replacement land could be successfully farmed. In addition, replacing existing undeveloped areas with active agriculture could trigger a range of negative environmental impacts, including increased groundwater consumption, habitat destruction, erosion, air quality impacts, and herbicide and pesticide application. As such, the replacement of the existing agricultural uses on other properties within the proposed SOI is infeasible.

⁸ Public Resources Code, Section 21002.1(b).

⁹ Public Resources Code, Section 21061.1

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- **Transfer of Development Rights.** Transferring development rights would involve the purchasing of the right to develop land from a currently undeveloped piece of land and transferring those rights to farmland within the city. Thus, this option is also infeasible because there would still be a net loss of Farmland (i.e., the Farmland preserved would still likely be preserved anyhow). Even if Farmland would be preserved elsewhere in Merced County, the Important Farmland in the city would be developed, resulting in a net loss of Farmland. Therefore, for these reasons outlined previously and in this paragraph, it would not prevent significant impacts from occurring in city and would not be an effective CEQA mitigation measure, nor is this mitigation measure feasible from an economic perspective within this region.
- **Relocation of Prime Farmland Topsoil.** This measure would remove the top 12 to 18 inches of topsoil from affected areas and haul this soil to a farm site or several farm sites that have lower quality soils. The Prime Farmland, Farmland of Statewide Importance, or Unique Farmland soils may assist in increasing crop yield at the relocated site. This measure would have its own environmental impacts, including increased truck traffic on local roadways from both hauling soil off-site and replacement soil onsite; increased diesel truck emissions; construction noise; and increased duration of construction. The relocation of prime farmland soils on another active farm would increase other environmental impacts and is therefore considered infeasible.

As described, these measures were considered and found to be infeasible for mitigating or avoiding the impact of the conversion of agricultural lands to other uses pursuant to the definition of CEQA in that there is no guarantee that measures would result in successfully establishing Important Farmland, Farmland of Statewide Importance, or Unique Farmland, if doing so could happen within a reasonable period of time, that their implementation would not potentially cause greater environmental impacts, and that acquiring additional lands to be established as Important Farmland, Farmland of Statewide Importance, or Unique Farmland would be economically possible.

Significance without Mitigation: Significant and unavoidable. As discussed previously, implementation of the proposed project would designate Prime Farmland, Farmland of Statewide Importance, or Unique Farmland land to non-agricultural land uses. Through General Plan 2042 policies and actions, and mandatory mitigation measures, impacts related to the conversion of qualifying agricultural lands would be reduced but not to a less-than-significant level. The proposed General Plan 2042 contains policies and actions to reduce the conversion of qualifying agricultural lands, such as Policy P-P7.3 that requires the City to support agricultural conservation easement programs managed by other public, private, and non-profit organizations, Policy P-P7.6 that requires applicants of annexation proposals that would result in the conversion of 50 or more acres to prepare inventories of vacant land that could serve the same purpose, and Actions P-A7.1 and P-A7.2 that require the City to explore feasible and implementable policies and mitigation measures to address impacts to agricultural lands and establish specific overlay zones to maintain existing agricultural lands, respectively. These policies and actions would not reduce the amount of acreage converted under buildout of the proposed General Plan 2042; however, they would forestall development of the best agricultural land within the City's SOI. While these efforts and other mitigation measures were considered, such as preserving agricultural uses in the EIR Study Area, replacement of agricultural resources by replacing lost agricultural uses to other areas of the city, and relocation of Prime Farmland topsoil to other areas, these mitigations are not feasible. Additionally, other mitigating

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efforts, such as conservation easements, one-to-one preservation, and right-to-farm ordinances all work to mitigate impacts; however, the only way to fully avoid the agricultural impact from implementation of the proposed General Plan is to not allow development on state-designated Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, thereby eliminating the agricultural impact. However, doing so is not feasible or practical as the City has a responsibility to meet other conflicting obligations, including increases in the number and type of jobs available in Los Banos and to reduce the need for residents to commute to high-quality jobs. These measures are critical to reducing single-occupant vehicle travel to and from Los Banos and meeting State targets for greenhouse gas reduction. The City needs to promote both economic development and corresponding residential development, as required by State housing law, within its adopted growth boundary. While possible forms of mitigation for, or avoidance of, conservation of agricultural lands in the EIR Study Area would be implemented by the City through its General Plan policies and actions, doing so to reduce impacts to a less-than-significant level would be infeasible and inconsistent with City planning goals and objectives. Therefore, impacts would remain *significant and unavoidable*.

AG-2 Implementation of the proposed project would conflict with existing zoning for agricultural use, or a Williamson Act contract.

There are a total of 319 acres of land that are under ongoing Williamson Act contracts in the EIR Study Area. As described in impact discussion AG-1, conversion of agricultural land uses under the proposed project would affect the majority of agricultural lands within the proposed SOI. Compared with Figure 4.2-2, *Williamson Act Lands*, the proposed project would potentially convert all of the Williamson Act lands within the EIR Study Area to non-agricultural uses. As listed in impact discussion AG-1, the General Plan 2042 Land Use (LU) Element; Parks, Open Space, and Conservation (P) Element; and Public Facilities and Services (PFS) Element contain goals, policies, and actions that require local planning and development decisions to consider impacts that development could have on existing agricultural land. Likewise, as previously discussed, the proposed land use designations in the Land Use Element increase allowed densities above what is currently permitted, which will help to provide additional residential capacity within the already-urbanized area of Los Banos, absorbing a greater proportion of residential demand through infill development and reducing pressure on agricultural land to convert to residential use.

While these General Plan 2042 goals, actions, and policies and increased density on specific land use designations would reduce potential impacts related to the conversion of land under the Williamson Act, since the proposed General Plan would designate a majority of these lands to non-agricultural uses, a *significant* impact would result.

Impact AG-2: Implementation of the General Plan 2042 would result in the loss of agricultural land under the Williamson Act.

Mitigation Measures Considered. As described in impact discussion AG-1, pursuant to CEQA, the City has considered mitigation to reduce impacts from implementation of the proposed General Plan 2042 that could conflict with lands under a Williamson Act contract. However, as shown, no feasible mitigation measures are available that would reduce the agricultural resource impact to less-than-significant levels. Specifically, the City considered a measure that would result in the replacement of

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Williamson Act contract farmland that would place other farmland under Williamson Act contract. Even if feasible, the placing of alternative farmland under Williamson Act contract would establish a commitment to retain that alternative farmland for agricultural use. The length of time that the alternative land will remain in agricultural use would depend on the terms of the Williamson Act contract. However, the Williamson Act contract will only reduce the potential that the alternative land will convert to non-agricultural use. The individual and cumulative loss of agricultural land caused by the proposed General Plan would still occur. Therefore, this mitigation measure will not reduce the proposed General Plan impacts on agriculture to below the level of significance. For these reasons, placing alternative privately held land under permanent restriction through Williamson Act contracts is considered infeasible.

Significance without Mitigation: Significant and unavoidable. As described in impact discussion AG-1, the proposed General Plan 2042 includes policies and actions to minimize impacts to agricultural lands. Those same General Plan policies and actions would also minimize impacts from conflicts with Williamson Act lands and reduce the likelihood of premature contract cancellations by the property owners of the Williamson Act parcels in the EIR Study Area. Mitigation for this impact was considered, including the placement of other farmland under Williamson Act contract. However, the individual and cumulative loss of agricultural land under the Williamson Act caused by the proposed project would still occur. Given that CEQA does not require that the project be changed to avoid an impact, and no additional mitigation is available, this would result in a *significant and unavoidable* impact.

AG-3	Implementation of the proposed project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.
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The proposed project would allow development that could result in potentially incompatible urban uses next to farms or ranches, creating circumstances that impair the productivity and profitability of agricultural operation, and could eventually lead farmers to take their land out of production. For example, this could manifest as complaints from new residents about noise, dust, and chemical use from agricultural operations. Concerns of farmers and ranchers about increased vandalism, traffic, access difficulties, and the introduction of domestic animals can lower productivity. Adjacent urban development may also increase land values, increasing the property tax burden for farmland not protected by Williamson Act contracts or permanent agricultural conservation easements.

The proposed project recognizes that the agricultural history of Los Banos contributes to its sense of place and seeks to preserve active agricultural lands. As such, the General Plan 2042 Land Use (LU) Element; Parks, Open Space, and Conservation (P) Element; and Public Facilities and Services (PFS) Element contain goals, policies, and actions that require local planning and development decisions to consider impacts that development could have on existing agricultural land. The same goals, policies, and actions listed in impact discussion AG-1 would serve to minimize potential adverse impacts of adjacent land uses on farmland as well as Policy P-P5.6, which requires anti-vandalism designs (appropriate fencing or other landscape features) to ensure that new development has conditions that minimize increased vandalism of adjacent agricultural activities outside the UGB.

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The proposed project also includes the proposed Annexation Ordinance that, as described in detail in Chapter 3, *Project Description*, of this Draft EIR, states the application eligibility criteria and the findings necessary for approval. To be eligible for annexation, a property must be contiguous with existing city limits, within the UGB, and at least 75 percent within the SOI. The annexation must be consistent with the policies of the City's General Plan and all appropriate City development standards and must be processed under an application for a Specific Plan funded fully by the applicant that includes zoning for the subject area and that may also include a development agreement. The proposed Annexation Ordinance requires that Specific Plans for all development include provisions for minimizing conflicts between new development and agricultural uses.

In addition to the components of the proposed project described above, the City of Los Banos maintains its UGB in part to differentiate land intended for future urbanization from land intended to remain rural and unincorporated for the next 20 years. In light of the policies and regulations described herein, a *less-than-significant* impact would result in this respect.

Significance without Mitigation: Less than significant.

AG-4 **Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in cumulative impacts with respect to agricultural resources.**

As described in Chapter 3, *Project Description*, and throughout this Draft EIR, the proposed project includes a buildout projection and population growth that would increase the urbanization of the city and potentially its SOI if annexation proposals are submitted. To accommodate anticipated growth and achieve City goals, the proposed project plans for the conversion of agricultural land to various types of residential and job-generating development. Moreover, the 2030 Merced County General Plan EIR found that a significant cumulative impact would result with respect to the conversion of agricultural lands elsewhere in Merced County.¹⁰ With implementation of the proposed project in combination with agricultural impacts identified throughout Merced County, the proposed project would contribute to cumulative impacts to agricultural resources.

As described in impact discussions AG-1 and AG-2, implementation of the proposed project would result in significant impacts related to the conversion of farmland of concern under CEQA and of farmland under Williamson Act contracts. As such, the proposed project would contribute to the cumulative impacts of overall conversion of these lands in the region.

Although the policies and actions in the General Plan 2042 would reduce and partially offset regional agricultural impacts, the proposed project would contribute to cumulatively significant agricultural impacts in the region and a cumulative *significant* impact would occur.

¹⁰ Merced County, November 2012, 2030 Merced County General Plan Draft PEIR, page 22-7 and 22-8.

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Impact AG-4: The General Plan 2042, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to the conversion of farmland of concern under CEQA and Williamson Act properties to non-agricultural uses.

Significance without Mitigation: Significant and unavoidable. As described previously, implementation of the proposed project would result in significant impacts related to the conversion of farmland of concern under CEQA and Williamson Act properties to non-agricultural uses. As such, the proposed project would contribute to the cumulative impact described in the Merced County General Plan EIR. Although the goals, policies, and actions in the General Plan 2042 would reduce and partially offset regional agricultural impacts, as well as consideration of mitigation measures to preserve agricultural lands, the only way to fully avoid the agricultural impact of the proposed General Plan is to not allow development on state-designated farmland, thereby eliminating the agricultural impact. However, this would be infeasible and inconsistent with City planning goals and objectives. Further, the amount of growth foreseen in the region and the decisions of Merced County and other surrounding counties regarding conversion of agricultural land are outside the control of the City of Los Banos. Therefore, this impact would be *significant and unavoidable*.

4.3 AIR QUALITY

This chapter describes the potential impacts to air quality associated with the adoption and implementation of the proposed project. This chapter 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 Environmental Impact Report (EIR). Transportation-sector impacts are based on trip generation and vehicle miles traveled (VMT) provided by Kittelson and Associates, Inc.. Cumulative impacts related to air quality are based on the regional boundaries of the San Joaquin Valley Air Basin (SJVAB).

4.3.1 ENVIRONMENTAL SETTING

4.3.1.1 TERMINOLOGY

The following are definitions for terms used throughout this section.

- **AAQS.** Ambient Air Quality Standards.
- **CES.** CalEnviroScreen 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

4.3.1.2 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 4.3-1, *Criteria Air Pollutant Health Effects Summary*, summarizes the potential health effects associated with the criteria air pollutants.

TABLE 4.3-1 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 diesels) ▪ 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, 2022, Common Air Pollutants: Air Pollution and Health, <https://ww2.arb.ca.gov/resources/common-air-pollutants>, accessed January 31, 2022. South Coast Air Quality Management District, 2005, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf>, accessed March 2, 2022.

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

- **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 interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation.¹ The SJVAB is designated under the California and National AAQS as being in attainment of CO criteria levels.²
- **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.³ The SJVAB is designated an attainment area for NO₂ under the National and California AAQS.⁴

¹ EPA. Criteria Air Pollutants, <https://www.epa.gov/criteria-air-pollutants>, accessed April 18, 2022.

² CARB, 2020. Area Designations Maps: State and National <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>, accessed April 18, 2022.

SJVAPCD, 2017. Ambient Air Quality Standards & Valley Attainment Status. <http://www.valleyair.org/aqinfo/attainment.htm>, April 18, 2022.

³ EPA. Criteria Air Pollutants, <https://www.epa.gov/criteria-air-pollutants>, accessed April 18, 2022.

⁴ CARB, 2020. Area Designations Maps: State and National <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>, accessed April 18, 2022.

SJVAPCD, 2017. Ambient Air Quality Standards & Valley Attainment Status. <http://www.valleyair.org/aqinfo/attainment.htm>, April 18, 2022.

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- **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.⁵ The SJVAB is designated attainment under the California and National AAQS.⁶
- **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 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. 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,⁷

⁵ EPA. Criteria Air Pollutants, <https://www.epa.gov/criteria-air-pollutants>, accessed April 18, 2022.

⁶ CARB, 2020. Area Designations Maps: State and National <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>, accessed April 18, 2022.

SJVAPCD, 2017. Ambient Air Quality Standards & Valley Attainment Status. <http://www.valleyair.org/aqinfo/attainment.htm>, April 18, 2022.

⁷ PM_{2.5} is the main cause of reduced visibility (haze) in parts of the United States.

environmental damage,⁸ and aesthetic damage.^{9,10} The SJVAB is a nonattainment area for PM₁₀ under the California AAQS and nonattainment for PM_{2.5} under the California and National AAQS.¹¹

- **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.¹² The SJVAB is designated severe nonattainment under the California AAQS (1-hour and 8-hour) and extreme nonattainment under the National AAQS (8-hour).¹³
- **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 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,

⁸ 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.

⁹ Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

¹⁰ EPA. Criteria Air Pollutants, <https://www.epa.gov/criteria-air-pollutants>, accessed April 18, 2022.

¹¹ CARB, 2020. Area Designations Maps: State and National <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>, accessed April 18, 2022.

SJVAPCD, 2017. Ambient Air Quality Standards & Valley Attainment Status. <http://www.valleyair.org/aqinfo/attainment.htm>, April 18, 2022.

¹² EPA. Criteria Air Pollutants, <https://www.epa.gov/criteria-air-pollutants>, accessed April 18, 2022.

¹³ CARB, 2020. Area Designations Maps: State and National <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>, accessed April 18, 2022.

SJVAPCD, 2017. Ambient Air Quality Standards & Valley Attainment Status. <http://www.valleyair.org/aqinfo/attainment.htm>, April 18, 2022.

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and lowered IQ.¹⁴ The SJVAB is designated in attainment of the California and National AAQS for lead.¹⁵ 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 TACs 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.¹⁶ At the time of the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs.¹⁷ 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.¹⁸

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.

¹⁴ EPA. Criteria Air Pollutants, <https://www.epa.gov/criteria-air-pollutants>, accessed April 18, 2022.

¹⁵ CARB, 2020. Area Designations Maps: State and National <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>, accessed April 18, 2022.

SJVAPCD, 2017. Ambient Air Quality Standards & Valley Attainment Status.

¹⁶ EPA. 2019. Health and Environmental Effects of Hazardous Air Pollutants. <https://www.epa.gov/haps/health-and-environmental-effects-hazardous-air-pollutants>

¹⁷ CARB, 1999. Final Staff Report: Update to the Toxic Air Contaminant List.

¹⁸ EPA. 2002, May. Health Assessment Document for Diesel Engine Exhaust. Prepared by the National Center for Environmental Assessment, Washington, DC, for the Office of Transportation and Air Quality. EPA/600/8-90/057F.

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CARB's recommendations on the siting of new sensitive land uses identified in Table 4.3-2, *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.

TABLE 4.3-2 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, May 2005, Air Quality and Land Use Handbook: A Community Health Perspective.

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 TACs 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.¹⁹

¹⁹ CARB. 2017, April. Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways
https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf

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4.3.1.3 REGULATORY FRAMEWORK

Federal, state, and local air districts have passed laws and regulations intended to control and enhance air quality. Land use in the EIR Study Area is subject to the rules and regulations imposed by SJVAPCD, CARB, and the United States Environmental Protection Agency (USEPA). The regulatory framework potentially applicable to the proposed project is summarized here.

Federal and State Regulations

Ambient air quality standards (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 Los Banos is in the SJVAB and is subject to the rules and regulations imposed by the SJVAPCD, the national AAQS adopted by the USEPA, and the California AAQS adopted by CARB. Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized herein.

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 CAA 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 4.3-3, *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 4.3-3 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})	Annual Arithmetic Mean	12.0 µg/m ³	12.0 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) ^e	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.
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.

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TABLE 4.3-3 AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS

Pollutant	Averaging Time	California Standard ^a	Federal Primary Standard ^b	Major Pollutant Sources
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.

Notes: ppm: parts per million; $\mu\text{g}/\text{m}^3$: micrograms per cubic meter

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

a. California standards for O_3 , CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2 , and particulate matter (PM_{10} , $\text{PM}_{2.5}$, 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 O_3 , PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O_3 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 PM_{10} , the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above $150 \mu\text{g}/\text{m}^3$ is equal to or less than one. For $\text{PM}_{2.5}$, 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 $\text{PM}_{2.5}$ primary standard was lowered from $15 \mu\text{g}/\text{m}^3$ to $12.0 \mu\text{g}/\text{m}^3$. The existing national 24-hour $\text{PM}_{2.5}$ standards (primary and secondary) were retained at $35 \mu\text{g}/\text{m}^3$, as was the annual secondary standard of $15 \mu\text{g}/\text{m}^3$. The existing 24-hour PM_{10} standards (primary and secondary) of $150 \mu\text{g}/\text{m}^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

e. On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual arithmetic mean standards were revoked.

Source: CARB, 2016, Ambient Air Quality Standards, <https://ww2.arb.ca.gov/resources/documents/ambient-air-quality-standards-0>, accessed March 2, 2022.

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

- **Assembly Bill (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 USEPA 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.
- **Senate Bill (SB) 1078 and SB 107: Renewables Portfolio Standards.** A major component of California's Renewable Energy Program is the renewables portfolio standard established under SBs 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 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 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 (CalEPA), acting through CARB, is authorized to identify a substance as a 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.

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- **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.²⁰

Air Quality Planning

The USEPA 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 referred to as State Implementation Plans (SIP). California's adopted *2007 State Strategy* was submitted to the USEPA as a revision to its SIP in November 2007 and has drafted a *2022 State Strategy* in January 2022.^{21,22} 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 ozone and PM_{2.5} and the California AAQS for PM₁₀ in the SJVAB (for California CAA compliance).²³ The following describes the air plans prepared by the SJVAPCD, which are incorporated by reference pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15150.

²⁰ SJVAPCD, 2015. *Guidance for Assessing and Mitigating Air Quality Impacts*. <http://www.valleyair.org/transportation/FINAL-DRAFT-GAMAQI.pdf>, accessed June 13, 2022.

²¹ CARB, California Air Resources Board's Proposed *State Strategy for California's 2007 State Implementation Plan* (2007 State SIP), <https://ww2.arb.ca.gov/resources/documents/2007-state-strategy-californias-state-implementation-plan-sip-federal-pm25-and>, accessed April 18, 2022.

²² CARB, 2022. *State Strategy for the State Implementation Plan* (2022 State SIP Strategy), <https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy>, accessed April 4, 2022.

²³ SJVAPCD, 2012. 2012 PM_{2.5} Plan, December 20.

1-Hour Ozone Plan

Although USEPA revoked its 1979 1-hour ozone standard in June 2005, many planning requirements remain in place. The SJVAPCD's most recent 1-hour ozone plan, the *2013 Plan for the Revoked 1-hour Ozone Standard*, demonstrated attainment of the 1-hour ozone standard by 2017. However, on July 18, 2016, the USEPA published in the Federal Register a final action determining that SJVAB has attained the 1-hour ozone NAAQS based on the 2012 to 2014 three-year period, allowing nonattainment penalties to be lifted under federal CAA Section 179b.²⁴ Furthermore, USEPA has recently approved the SJVAPCD's request for the 1-hour ozone clean data finding and has proposed to grant the Valley as attainment for the standard.²⁵

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 national AAQS. The measures and strategic document in this *2016 Ozone Plan* will reduce NO_x emissions by over 60 between 2012 and 2031 to bring the Valley into attainment status. In 2015, the Valley experienced a record-setting clean ozone season and the Ozone Plan projects that the SJVAB will achieve the USEPA's 1997 8-hour ozone standard for all areas of the SJVAB before the projected 2023 attainment date included in the *2007 Ozone Plan*. CARB approved the plan on July 21, 2016.^{26,27}

PM₁₀ Plan

Based on PM₁₀ measurements from 2003 to 2006, USEPA 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*. This plan demonstrates that the SJVAB will continue to meet the PM₁₀ standard. USEPA approved the document and on September 25, 2008, the SJVAB was redesignated to attainment/maintenance.²⁸

PM_{2.5} Plan

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. Based on implementation of the control strategy in *2018 PM_{2.5} Plan* that was adopted on December 20, 2012, modeling has shown that the Valley will attain the 1997 annual PM_{2.5} standard by the attainment date of 2023. This plan was approved by CARB on January 24, 2013, and ensured that the SJVAB will attain the 2006 PM_{2.5} National

²⁴ SJVAPCD. Ozone Plans. http://www.valleyair.org/Air_Quality_Plans/Ozone_Plans.htm, accessed September 12, 2017.

²⁵ SJVAPCD. 2016 Plan for the 2008 8-Hour Ozone Standard, http://valleyair.org/Air_Quality_Plans/Ozone-Plan-2016/Adopted-Plan.pdf, accessed April 4, 2022.

²⁶ SJVAPCD. Ozone Plans. http://valleyair.org/Air_Quality_Plans/Ozone_Plans.htm, April 4, 2022.

²⁷ SJVAPCD. 2016 Plan for the 2008 8-Hour Ozone Standard, http://valleyair.org/Air_Quality_Plans/Ozone-Plan-2016/Adopted-Plan.pdf, accessed April 4, 2022.

²⁸ SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>, accessed April 4, 2022.

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AAQS. The plan uses control measures to reduce NO_x, which also leads to fine particulate formation in the atmosphere. The plan incorporates measures to reduce direct emissions of PM_{2.5}, including a strengthening of regulations for various SJVAB industries and the general public through new rules and amendments. The plan estimates that the SJVAB will reach the PM_{2.5} standard by 2019.²⁹

SJVAPCD also adopted the 2015 PM_{2.5} Plan for the 1997 PM_{2.5} Standard on April 16, 2015, to achieve attainment for the USEPA 1997 annual and 24-hour PM_{2.5} standards by the end of 2020. Furthermore, SJVAPCD adopted the *2016 Moderate Area Plan* for the 2012 PM_{2.5} Standard on September 15, 2016, which requests a new attainment deadline of 2025.³⁰ The 2018 PM_{2.5} Plan was adopted by CARB and SJVAPCD to develop a strategy for bringing the Valley into attainment with the 1997, 2006, and 2012 National AAQS for PM_{2.5}. In 2021, SJVAPCD adopted *Attainment Plan Revision for 1997 Annual PM 2.5 Standard* to establish a new attainment target for the PM_{2.5} standard since the Valley would have met this standard by the projected attainment target of 2020.³¹

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. Transportation control measures are part of these plans.

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, those 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.

²⁹ SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>, accessed April 4, 2022.

³⁰ SJVAPCD. Particulate Matter Plans, http://www.valleyair.org/Air_Quality_Plans/PM_Plans.htm.

³¹ SJVAPCD. Particulate. Attainment Plan Revision for 1997 Annual PM 2.5 Standard, <https://www2.valleyair.org/media/spjlsxt/attainment-plan-revision.pdf>.

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.³² 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.
- 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 2 or more tons of NO_x or 2 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 2 or more tons per year of NO_x or PM₁₀ during project operations.

The rule requires all subject, nonexempt projects³³ 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-

³² SJVAPCD. 2005. Final Staff Report: Rule 9510 – Indirect Source Review (ISR), Rule 3180 – Administrative Fees for Indirect Source Review, December 15, http://www.valleyair.org/ISR/Documents/Rule_9510_StaffReport.pdf.

³³ Development projects that have a mitigated baseline below 2 tons per year of NO_x and 2 tons per year of PM₁₀ are exempt.

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reduction measures. Phased projects can defer payment of fees in accordance with an Off-Site Emissions Reduction Fee Deferral Schedule (FDS) approved by the SJVAPCD.

To determine how an individual project would satisfy Rule 9510, each project would submit an air quality impact assessment 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).³⁴ 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

Mitigation measures may include those that reduce construction emissions on-site by using less polluting construction equipment, which can be achieved by using 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 air quality impact assessment.
 - *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 air quality impact assessment.

These requirements can be met through any combination of on-site emission-reduction measures. In the event that a project cannot achieve these 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 that 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 (BACT) to control emissions to the maximum extent practicable.

³⁴ Stationary sources of air pollutant emissions are covered separately under SJVAPCD's Rule 2201, *New and Modified Stationary Source Review*.

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 fugitive dust emissions caused by humans.

- **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 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.

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 measures 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 earthmoving activities.

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

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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 SJVAPCD. 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

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives to minimize adverse impacts to air quality in Los Banos. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions related to air quality impacts are included in Title 9, *Planning and Zoning*, and Title 10, *Parks and Recreation*, as follows:

- **Chapter 3, *Zoning*, Article 21, *Performance Standards*, Section 9-3.2015, *Smoke*.** Regulates visibility of emissions from chimneys (Section 5.25, Ord. 342, as amended by Section 182, Ord. 1095, eff. November 20, 2010)

- **Chapter 3, Zoning, Article 21, Performance Standards, Section 9-3.2106, Odors.** Prohibits odorous gases or other odorous matter in such quantities as to be readily detectable when diluted in the ratio of one volume of odorous air to four volumes of clean air at the lot line. In addition, this ordinance requires installation of a secondary safeguard system to control odors should the primary safeguard system fail. (Section 5.25, Ord. 342, as amended by Section 182, Ord. 1095, eff. November 20, 2010)
- **Chapter 3, Zoning, Article 21, Performance Standards, Section 9-3.2107, Fly Ash, Dust, Fumes, Vapors, Gases, and Other Forms of Air Pollution.** Prohibits emissions that can cause any damage to health, animals, vegetation, or other forms of property or which can cause any excessive soiling at any point. (Section 5.25, Ord. 342, as amended by Section 182, Ord. 1095, eff. November 20, 2010)
- **Chapter 1.12, Adoption of the California Green Building Standards Code 2019 Edition.** This chapter incorporates CCR Title 24, Part 11, California Green Building Standards Code.

4.3.1.4 EXISTING CONDITIONS

San Joaquin Valley Air Basin

Los Banos is in the central portion of the SJVAB. 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, Coast Ranges in the west, and 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.³⁵

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, which 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).

³⁵ SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>.

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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.³⁶

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 the Altamont Pass and Pacheco Pass, where it can 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. Approximately 27 percent of the total emissions in the northern portion, 11 percent of total emissions in the central region, and 7 percent of total emission in the south valley of the SJVAB are attributed to air pollution transported from these two areas.³⁷ 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.³⁸

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 volatile organic compounds) and nitrogen dioxide under the influence of sunlight. Ozone concentrations are very dependent on the amount of solar

³⁶ SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>.

³⁷ SJVAPCD. Frequently Asked Questions, http://www.valleyair.org/general_info/frequently_asked_questions.htm#What%20is%20being%20done%20to%20improve%20air%20quality%20in%20the%20San%20Joaquin%20Valley, accessed September 12, 2017.

³⁸ SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>.

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 formed, 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.³⁹

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 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 PM₁₀.⁴⁰

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.

³⁹ SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>.

⁴⁰ SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>.

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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.⁴¹

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 AAQS. 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 4.3-4, *Attainment Status of Criteria Pollutants in the SJVAB*.

Existing Ambient Air Quality

CARB, in cooperation with SJVAPCD, monitors air quality throughout the SJVAB. The Merced – S Coffee Avenue Monitoring Station within the EIR Study Area monitors O₃, CO, NO₂, PM₁₀, and PM_{2.5}. Data from PM₁₀ are supplemented by the Tracy-Airport Monitoring Station. Data from this station is summarized in Table 4.3-5, *Ambient Air Quality Monitoring Summary*. The data show regular violations of the State and federal PM₁₀ and O₃ standards and federal PM_{2.5} standard.

⁴¹ SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>.

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TABLE 4.3-4 ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SJVAB

Pollutant	Federal	State
Ozone – 1-hour	Revoked in 2005 ^a	Nonattainment/Severe
Ozone – 8-hour	Nonattainment/Extreme ^b	Nonattainment
Respirable Particulate Matter (PM ₁₀)	Attainment ^c	Nonattainment
Fine Particulate Matter (PM _{2.5})	Nonattainment ^d	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

Notes:

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

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

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

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

Source: California Air Resources Board, 2022, Maps of State and Federal Area Designations, <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>, accessed January 27, 2022.

TABLE 4.3-5 AMBIENT AIR QUALITY MONITORING SUMMARY

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels During Such Violations				
	2016	2017	2018	2019	2020
Ozone (O₃) ^a					
State 1-Hour \geq 0.09 ppm	2	0	4	0	2
State & Federal 8-hour \geq 0.07 ppm	28	16	21	6	20
Maximum 1-Hour Conc. (ppm)	0.097	0.093	0.104	0.087	0.100
Maximum 8-Hour Conc. (ppm)	0.086	0.084	0.083	0.076	0.087
Nitrogen Dioxide (NO₂) ^a					
State 1-Hour \geq 0.18 (ppm)	0	0	0	0	0
Maximum 1-Hour Conc. (ppb)	0.0354	0.0389	0.0458	0.0387	0.0385
Coarse Particulates (PM₁₀) ^b					
State 24-Hour $>$ 50 $\mu\text{g}/\text{m}^3$	*	*	*	*	*
Federal 24-Hour $>$ 150 $\mu\text{g}/\text{m}^3$	0	0	2	1	2
Maximum 24-Hour Conc. ($\mu\text{g}/\text{m}^3$)	53.0	152.0	250.2	241.4	236.0
Fine Particulates (PM_{2.5}) ^a					
Federal 24-Hour $>$ 35 $\mu\text{g}/\text{m}^3$	5	18	21	1	23
Maximum 24-Hour Conc. ($\mu\text{g}/\text{m}^3$)	43.0	69.3	88.2	35.5	117.4

Notes: ppm = parts per million; ppb = parts per billion; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter; * = insufficient data/not availablea. Data obtained from the Merced-S Coffee Monitoring Station for O₃, NO_x, and PM_{2.5}.b. Data obtained from the Tracy-Airport Monitoring Station for PM₁₀.Source: CARB, 2022, Air Pollution Data Monitoring Cards (2016, 2017, 2018, 2019, and 2020), <http://www.arb.ca.gov/adam/index.html>, accessed on April 18, 2022.

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Existing Emissions

Table 4.3-6, *Existing EIR Study Area Regional Criteria Air Pollutant Emissions Inventory*, identifies the existing criteria air pollutant emissions inventory using emission rates for year 2019 (baseline conditions). The inventories are based on existing land uses in the city. The Year 2019 inventory represents the projected emissions currently generated by existing land uses using the baseline year 2019 emission factors for on-road vehicles.

TABLE 4.3-6 EXISTING EIR STUDY AREA REGIONAL CRITERIA AIR POLLUTANT EMISSIONS INVENTORY

Pollutant/Standard	Tons per year					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Transportation	21	319	692	3	7	12
Energy	3	28	21	<1	2	2
Off-road Equipment	1	1	10	<1	<1	<1
Consumer Products	94	—	—	—	—	—
Total	119	358	746	3	9	15

Source: PlaceWorks, 2022. See Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft EIR.

Table 4.3-6 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.

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.^{42, 43} 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 related to 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,

⁴² 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.

⁴³ CalEnviroScreen 4.0. Indicator Maps can be found at: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>

commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as 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.

4.3.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed 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.

4.3.2.1 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 herein.

The SJVAPCD has developed the *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI), which was adopted on February 19, 2015, and updated March 19, 2015.⁴⁴ 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 air 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 4.3-7, *SJVAPCD Regional Criteria Air Pollutants Significance Thresholds*, lists SJVAPCD's regional significance

⁴⁴ SJVAPCD, 2015. *Guidance for Assessing and Mitigating Air Quality Impacts*, available at <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>; updated March 19, 2015: <http://www.valleyair.org/transportation/GAMAQI.pdf>

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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 4.3-7 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. 2015. *Guidance for Assessing and Mitigating Air Quality Impact*, <http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf>.

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 USEPA, SJVAPCD prepares AQMPs that detail regional programs to attain the AAQS.

Mass emissions in Table 4.3-7 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 air basin would be affected by the health effects listed above. Projects that do not exceed the SJVAB regional significance thresholds in Table 4.3-7 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 4.3-7, 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 4.3-7, 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 air basin 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 Air Basin.

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 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 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 EIR, emissions of any criteria air pollutant that would exceed the applicable threshold of significance identified in Table 4.3-7 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 4.3-7 are based on SJVAPCD’s New Source Review offset requirements for stationary sources. Emission reductions achieved through implementation of SJVAPCD 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 4.3-7) 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 EIR, projects with emissions that exceed these values are considered to have the potential to exceed the AAQS, resulting in a potentially significant impact.

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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 4.3-8, *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 degree of odors could be significant and may be based on a review of SJVAPCD's complaint records.

TABLE 4.3-8 SJVAPCD SCREENING LEVELS FOR POTENTIAL ODOR SOURCES

Land Use/Type of Operation	Screening Distance
Wastewater Treatment Plant	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
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. 2015, February. Final Draft Guidance for Assessing and Mitigating Air Quality Impacts - 2015.
<https://www.valleyair.org/transportation/GAMAQI-2015/GAMAQI-Criteria-Pollutant-Thresholds-of-Odors.pdf>.

For a project 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 4.3-8, sensitive receptors such as residential, commercial, office, and institutional uses (such as the hospital land uses) would not be the type 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 EIR.

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 USEPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is warranted.

Table 4.3-9, *SJVAPCD Toxic Air Contaminants Incremental Risk Thresholds*, lists the SJVAPCD's TAC incremental risk thresholds for operation of a project. As stated, under the *CBIA* ruling, while 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 4.3-9 would not substantially contribute to cumulative air quality hazards or exacerbate an existing environmental hazard. Residential, commercial, office, and institutional uses (such as the hospital land uses) do not use substantial quantities of TACs and typically do not exacerbate existing hazards.

TABLE 4.3-9 SJVAPCD TOXIC AIR CONTAMINANTS INCREMENTAL RISK THRESHOLDS

Cancer Risk ^a	≥ 20 in 1 million
Hazard Index ^b	≥ 1.0

Notes:

a. For the Maximum Exposed Individuals (MEI).

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

Sources: SJVAPCD. 2015a, February. *Guidance for Assessing and Mitigating Air Quality Impacts*. <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>. and SJVAPCD. 2022 (Accessed May 10). CEQA Project Analysis Levels. <https://www.valleyair.org/transportation/ceqaanalysislevels.htm>

4.3.2.2 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 EIR Study Area's criteria air pollutant emissions inventory includes the following sectors:

- **Transportation:** Transportation emissions forecasts were modeled using emission rates from CARB's EMFAC2017, version 1.0.2 web database. Model runs were based on daily VMT data provided by Kittelson and Associates, Inc. adjusted for the population and employment in the EIR Study Area in year 2021. The VMT provided includes the full trip length for land uses in the city. 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.
- **Energy:** Energy use for residential and nonresidential land uses in the city were modeled using natural gas data provided by Pacific Gas and Electric Company (PG&E). Residential energy and non-residential energy forecasts are adjusted for increases in housing units and employment, respectively.
- **Off-Road Equipment:** Emission rates from CARB's OFFROAD2021, version 1.0.1, web database were used to estimate criteria air pollutant emissions from light commercial and construction equipment in

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the city. 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 Merced for year 2021. To determine the percentage of emissions attributable to the city, light commercial equipment is estimated based on employment for the City of Los Banos as a percentage of Merced County. Agricultural equipment is based on the percentage of farmland in the city compared to the County of Merced. Construction equipment use is estimated based on building permit data for the City of Los Banos and County of Merced from data compiled by the US Census. The light commercial equipment emissions forecast is adjusted for changes in employment in the city. It is assumed that construction emissions for the forecast year would be similar to historical levels. 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.

4.3.2.3 IMPACTS OF THE ENVIRONMENT ON A PROJECT

In 2016, the California Legislature passed 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 General Plan 2042 addresses air quality and health risk impacts to sensitive land uses.

Buildout of the proposed land use plan under the General Plan 2042 could result in siting sensitive uses (e.g., residential) near sources of emissions (e.g., freeways, industrial uses). 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 4.3.3. However, the proposed Land Use (LU) Element and Parks and Open Space, and Conservation (P) Element contain goals and policies that require local planning and development decisions to consider air quality impacts and require design features to minimize air quality impacts and to achieve appropriate health standards. The following General Plan 2042 goal and policy would minimize potential adverse air quality impacts:

- **Goal LU-P3.1.** Provide a clear process for annexation proposals that ensures the proposals meet the requirements and needs of the Los Banos community.
 - **Policy LU-P3.5.** Specific Plans for areas including industrial and business park uses shall meet the following criteria:
 - Provisions to minimize conflicts and ensure compatibility between new industrial development, existing agriculture, and existing or planned residential uses, including use of buffers, as appropriate.
 - Provisions for services and amenities for employees, such as recreation, childcare, and dining.

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- Coordination with adjacent industrial development in Los Banos.
 - Coordination of roadway and infrastructure improvements/financing of frontage treatment along arterial roadways.
 - Provision of all on-site infrastructure that is needed to serve the industrial or business park development and contribution towards a fair share of off-site infrastructure improvements.
- **Goal LU-7.** Nurture individual neighborhoods by adopting tailored Land Use policies that address the needs of Los Banos' subareas.
 - **Policy LU-P7.11.** Prohibit gas stations or other potentially polluting uses at the commercial area immediately south of the future SR-152 bypass interchange with SR-165.
- **Goal P-11.** Maintain and improve air quality within Los Banos.
 - **Policy P-P11.3.** Require that new multifamily residential buildings and other sensitive land uses in areas with high levels of localized air pollution be designed to achieve good indoor air quality through landscaping, ventilation systems, or other measures.
- **Goal P-13.** Ensure equitable and healthy air quality among all communities in the city so that all residents, including those with high sensitivity to unhealthy air, can live in their community without facing disproportionately high risks of respiratory disease and other health problems.
 - **Policy P-P13.3.** Require new development to site-sensitive receptors, such as homes, schools, playgrounds, sports fields, childcare centers, senior centers, and long-term healthcare facilities as far away as possible from significant pollution sources.

4.3.3 IMPACT DISCUSSION

AIR-1	Implementation of the proposed project could conflict with or obstruct implementation of the SJVAPCD air quality plans.
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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 (City of Los Banos) 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 Merced County Association of Governments (MCAG) for the Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS) for Merced County (2018 MCAG RTP/SCS).⁴⁵ Growth forecasts are based, in part, on a local jurisdictions' general plan land use designations. These projections form the foundation for the emissions inventory of the AQMP. Potential

⁴⁵ Merced County Association of Government (MCAG). 2018 Regional Transportation Plan & Sustainable Communities Strategy for Merced County, <https://www.mcagov.org/DocumentCenter/View/1731/MCAG-2018-RTP-finaldraft-2018-08-06?bidId=>, accessed April 4, 2022.

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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 4.13, *Population and Housing*, the expected buildout under the proposed project would exceed the regional growth projections for 2042 for population, housing, and jobs. However, the proposed project accommodates substantially less growth than the current General Plan (see Table 4.13-6, *Buildout Comparison of Current General Plan and General Plan 2042 to Regional Growth Projections*). Furthermore, the General Plan 2042 would result in an overall decrease in VMT per service population compared to existing conditions.

SJVAPCD has prepared several plans to attain the National AAQS and California AAQS. 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 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, implementation of the proposed project would generate a substantial increase in operational (long-term) criteria air pollutants that would exceed the SJVAPCD's significance thresholds.

A wide variety of control measures are included in the regional air quality plans, such as reducing or offsetting emissions from construction and operations associated with land use developments. Potential future development projects that would occur in the buildout horizon of the proposed project would be required to adhere to the SJVAPCD control measures, as outlined in the air quality plans and implemented through SJVAPCD rules and regulations.

Summary

While the proposed project would support a more sustainable development pattern for the EIR Study Area, potential future buildout would result in a substantial increase in operational (long-term) criteria pollutant emissions compared to existing conditions that would exceed the SJVAPCD's significance criteria (see Impact AIR-2a). As a result, implementation of the proposed project has the potential to exceed the emissions forecasts of the SJVAPCD's AQMPs and result in *potentially significant* impacts.

Impact AIR-1: Implementation of the General Plan 2042 would result in the generation of substantial operational (long-term) criteria air pollutant emissions that would exceed the San Joaquin Valley Unified Air Pollution Control District regional significance thresholds and would therefore not be considered consistent with the existing Air Quality Management Plans.

Mitigation Measure AIR-1: Implement Mitigation Measures AIR-2a and AIR-2b.

Significance with Mitigation: Significant and unavoidable. The various goals, policies, and actions of the proposed project identified in Impact AIR-2, in addition to applicable SJVAPCD rules and regulations, would reduce operational (long-term) criteria air pollutant emissions to the extent

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feasible. However, because of the magnitude and intensity of development accommodated by the proposed project, as well as regional air quality influences beyond the control of Los Banos, impacts associated with consistency with the SJVAPCD would remain *significant and unavoidable*. No additional feasible mitigation measures would ensure consistency of the General Plan 2042 with the SJVAPCD's AQMPs. The identification of this program-level impact does not preclude the finding of less-than-significant impacts for subsequent individual projects that meet applicable project-level thresholds of significance.

AIR-2	Implementation of the proposed project could 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 General Plan 2042 guides growth within the EIR Study Area by designating land uses in the proposed land use diagram and through implementation of its goals, policies, and actions. New development would increase air pollutant emissions in the EIR Study 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 4.3.1.2, *Air Pollutants of Concern*.

Operation (Long-Term Emissions)

Operational (long-term) activities associated with potential future development that would be accommodated under the proposed project could generate a substantial increase in long-term criteria air pollutant emissions from existing conditions 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 Kittelson and Associates, Inc.. The emissions forecast for the EIR Study Area under the proposed project compared to existing conditions (with 2042 emissions rates) is shown in Table 4.3-10, *EIR Study Area Criteria Air Pollutant Emissions Forecast*. As shown in Table 4.3-10, implementation of the proposed project would result in an increase in criteria air pollutant emissions from existing conditions. This increase is based on the difference between existing land uses and land uses associated with development allowed under the proposed project, as well as an estimate of population and employment in the EIR Study Area in the 2042 horizon year.

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TABLE 4.3-10 EIR STUDY AREA CRITERIA AIR POLLUTANT EMISSIONS FORECAST

Year	Criteria Air Pollutants (Tons/Year)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Existing Land Uses – Year 2042						
On-Road Transportation	4	119	253	2	3	7
Energy	3	28	21	<1	2	2
Off-road Equipment	1	1	10	<1	<1	<1
Consumer Products	94	–	–	–	–	–
Existing Land Uses Total	101	147	284	2	5	9
Proposed Land Use Plan – Year 2042						
On-Road Transportation	6	189	404	3	4	11
Energy	5	45	23	<1	4	4
Off-road Equipment	1	1	15	<1	<1	<1
Consumer Products	185	–	–	–	–	–
Proposed Land Uses Total	197	235	441	4	8	15
Change in Emissions						
On-Road Transportation	2	70	150	1	2	4
Energy	2	17	1	<1	1	1
Off-road Equipment	<1	<1	5	<1	<1	<1
Consumer Products	91	–	–	–	–	–
Net Change from Existing	96	88	157	1	3	6
SJVAPCD Threshold	10	10	100	27	15	15
Exceeds SJVAPCD Threshold?	Yes	Yes	Yes	No	No	No

Note: Numbers may not add up due to rounding.

Source: PlaceWorks, 2022. See Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft EIR.

As shown in the Table 4.3-10, development that could occur under the proposed project would generate operational (long-term) air pollutant emissions that exceed SJVAPCD’s regional significance thresholds for VOC, NO_x, and CO, in 2042. Emissions of VOC and NO_x that exceed the SJVAPCD regional threshold would cumulatively contribute to the O₃ nonattainment designation of the SJVAB. Emissions of NO_x that exceed SJVAB’s regional significance thresholds would cumulatively contribute to the O₃ and particulate matter (PM₁₀ and PM_{2.5}) nonattainment designations of the SJVAB.

While growth within the EIR Study Area would cumulatively contribute to operational (long-term) regional criteria air pollutant emissions impacts, the proposed project Land Use (LU) Element; Circulation (C) Element; and Parks, Open Space, and Conservation (P) Element includes goals, policies, and actions that require local planning and development decisions to consider impacts from emissions and to reduce those emissions. The following General Plan 2042 goals, policies, and actions would minimize potential adverse impacts related to operational phase (long-term) regional criteria air pollutant emissions:

- **Goal LU-4.** Protect and enhance Los Banos’ image and unique sense of place.

- **Policy LU-P4.8.** Facilitate environmentally sensitive development practices by:
 - Exploring and promoting the use of new sustainable building materials, such as mass timber and cross laminated timber in new development, consistent with State building codes;
 - Encouraging the purchase of locally or regionally available materials, when practical;
 - Encouraging both passive solar design features and the incorporation of solar panels or solar-readiness;
 - Promoting the use of the U.S. Green Building Council’s LEED rating system; and
 - Creating Green Building Design Guidelines to be used in the development review process.
- **Goal C-2.** Make efficient use of existing transportation facilities and, through coordinated land use planning, strive to improve accessibility to shops, schools, parks, and employment centers for all users, and reduce total vehicle miles traveled per household to minimize vehicle emissions and save energy.
 - **Policy C-P2.6.** Reduce vehicle miles traveled (VMT) through measures such as improvements to public transportation and carpooling and offering safe routes for pedestrians and bicyclists.
- **Goal C-3.** Provide a wide variety of transportation alternatives and modes to serve all residents and businesses to enhance the quality of life.
 - **Policy C-P3.2.** Work with Merced County Transit to situate transit stops and hubs at locations that are convenient for transit users and promote increased transit ridership through the provision of shelters, benches, bike racks on buses, and other amenities.
 - **Policy C-P3.3.** Ensure that new development is designed to make transit a viable choice for residents. Design options include:
 - Have neighborhood focal points with sheltered bus stops;
 - Locate medium- to high-density development near streets served by transit; and
 - Link neighborhoods to bus stops by continuous sidewalks or pedestrian paths.
- **Goal C-4.** Promote bicycling and walking as alternatives to the automobile.
 - **Policy C-P4.1.** Develop bicycle lanes, routes, and paths consistent with the Los Banos Bicycle-Pedestrian Plan.
 - **Policy C-P4.6.** Provide for pedestrian-friendly zones in conjunction with the development, redevelopment, and design of mixed-use neighborhood core areas, the Downtown area, schools, parks, and other high-use areas by:
 - Providing intersection “bump outs” to reduce walking distances across streets in the Downtown and other high-use areas;
 - Providing crosswalks at all signalized intersections;
 - Providing landscaping that encourages pedestrian use; and
 - Constructing adequately lit and safe access through subdivision sites.
- **Goal C-7.** Provide a safe and accessible multimodal circulation network for disadvantaged communities that improves health and reduces pollution exposure.

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- **Policy C-P7.2.** Support improvements to bikeways and sidewalks in disadvantaged communities to make active transportation more accessible, user-friendly, and safer, while decreasing vehicle speeds, congestion, and air pollution.
- **Goal P-11.** Maintain and improve air quality within Los Banos.
 - **Policy P-P11.1.** Improve air quality to promote public health, safety, and Los Banos' environmental quality.
 - **Policy P-P11.2.** Make air quality a priority in land use planning by implementing emissions-reduction efforts targeting mobile sources, stationary sources, and construction-related sources.
 - **Policy P-P11.4.** Support federal and state efforts to reduce greenhouse gases and emissions through local action that will reduce motor vehicle use, support alternative forms of transportation, require energy conservation in new construction, and energy management in public buildings.
 - **Policy P-P11.5.** Assume leadership in efforts to reduce toxic air pollutants and ozone-depleting compounds.
 - **Policy P-P11.7.** Prohibit wood-burning stoves and fireplaces in new development.
 - **Policy P-P11.8.** Use the San Joaquin Valley Air Pollution Control District Guidelines 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.
 - **Action P-A11.1.** Develop and implement a plan to provide clean air refuges during times when outdoor air quality is unhealthy.
 - **Action P-A11.2.** Purchase hybrid gasoline-electric or bio-diesel fuel vehicles for the City fleet and provide incentives to City employees who carpool or use hybrid vehicles.
- **Goal P-12.** Promote resilient design and energy efficiency in the built environment.
 - **Policy P-P12.1.** Maximize tree planting, landscaping, green roofs, and other vegetation measures to mitigate heat gain and heat island effects, improve resilience, and create new spaces for biodiversity.
 - **Policy P-P12.2.** Where feasible, require use of materials that minimize heat island effect, such as cool pavements and cool roofs. Where feasible, minimize impervious and paved surfaces.
 - **Policy P-P12.3** Encourage the use of low-emission building, such as HVAC equipment, and operation equipment for all new residential and commercial development.

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. While SJVAPCD rules and proposed General Plan 2042 goals, policies, and actions may reduce operation-related (long-term) regional air quality impacts of individual projects accommodated under the proposed project to less than significant, due to the magnitude of development allowed, the projected cumulative emissions associated with future development projects would exceed the threshold. Therefore, implementation of the proposed project would significantly contribute to the nonattainment designations of the SJVAB, resulting in a *significant* impact.

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Impact AIR-2a: Operation of development projects that could occur from implementation of the General Plan 2042 would generate emissions that would exceed the San Joaquin Valley Unified Air Pollution Control District regional significance thresholds for volatile organic compounds (VOC), nitrogen oxides (NO_x), and carbon monoxide (CO).

Mitigation Measure AIR-2a: Prior to discretionary approval by the City for development projects subject to California Environmental Quality Act (CEQA) review (i.e., non-exempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation phase-related air quality impacts to the City of Los Banos for review and approval. The evaluation shall be prepared in conformance with San Joaquin Valley Unified Air Pollution Control District (SJVAPCD) methodology in assessing air quality impacts. If operation-related 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*, the City of Los Banos Planning and Engineering Division shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval. Possible mitigation measures to reduce operational (long-term) emissions can include, but are not limited to, the following:

- For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions.
- Applicants for manufacturing and light industrial uses shall consider energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use.
- Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading, in accordance with Section 2485 of Title 13, California Code of Regulations, Chapter 10.
- Provide changing/shower facilities as specified, at minimum, or greater than in the guidelines of the Nonresidential Voluntary Measures of the California Green Building Standards Code (CALGreen in Part 11 of Title 24).
- Provide bicycle parking facilities equivalent to or greater than as specified in the Residential Voluntary Measures of CALGreen.
- Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles equivalent to or greater than the Nonresidential Voluntary Measures of CALGreen.
- Provide facilities to support electric charging stations per the Nonresidential Voluntary Measures and the Residential Voluntary Measures of CALGreen.
- Applicant-provided appliances shall be Energy Star-certified appliances or appliances of equivalent energy efficiency (e.g., dishwashers, refrigerators, clothes washers, and dryers). Installation of Energy Star-certified or equivalent appliances shall be verified by the City during plan check.
- Applicants for future development projects along existing and planned transit routes shall coordinate with the Los Banos and Merced Transit Authority to ensure that bus pad and shelter improvements are incorporated, as appropriate.
- Applicants for future development projects shall enter into a Voluntary Emissions Reduction Agreement (VERA) with the SJVAPCD. The VERA shall identify the amount of emissions to be

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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.

Buildout in accordance with the General Plan 2042 would generate long-term emissions that would exceed SJVAPCD's regional significance thresholds and cumulatively contribute to the nonattainment designations of the SJVAB. Mitigation Measure AIR-2a, in addition to the goals, policies, and actions of the General Plan 2042, and implementation of SJVAPCD Indirect Source Review Rule 9510, would reduce air pollutant emissions to the extent feasible. The measures and policies covering topics such as expansion of the pedestrian and bicycle networks, promotion of public and active transit, and support to increase building energy efficiency and energy conservation would also reduce criteria air pollutants within the city. Further, as shown in Table 4.3-11, *Net Change in Regional Criteria Air Pollutant Emissions from Existing Baseline*, compared to existing baseline year conditions, emissions of NO_x and CO are projected to decrease from current levels despite growth associated with the General Plan 2042. However, operational (long-term) emissions would remain *significant and unavoidable* due to the increase in VOCs from residential development and increase in NO_x and CO from mobile sources associated with the General Plan 2042.

TABLE 4.3-11 NET CHANGE IN REGIONAL CRITERIA AIR POLLUTANT EMISSIONS FROM EXISTING BASELINE

Year	Criteria Air Pollutants (Tons/Year)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Existing Land Uses – Existing Baseline						
On-Road Transportation	21	319	692	3	7	12
Energy	3	28	21	0	2	2
Off-road Equipment	1	1	10	0	0	0
Consumer Products	94	—	—	—	—	—
Existing Land Uses Total	118	347	722	3	9	14
Proposed Land Use Plan – Year 2042						
On-Road Transportation	6	189	404	3	4	11
Energy	5	45	23	<1	4	4
Off-road Equipment	1	1	15	<1	<1	<1
Consumer Products	185	—	—	—	—	—
Proposed Land Uses Total	197	235	441	4	8	15
Change in Emissions						
On-Road Transportation	-15	-130	-288	0	-3	-1
Energy	2	17	1	0	1	1
Off-road Equipment	0	0	5	0	0	0
Consumer Products	91	—	—	—	—	—
Net Change from Existing	78	-113	-282	0	-1	0
SJVAPCD Threshold	10	10	100	27	15	15
Exceeds SJVAPCD Threshold?	Yes	No	No	No	No	No

Note: Numbers may not add up due to rounding.

Source: PlaceWorks, 2022. See Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft EIR.

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This EIR quantifies the increase in criteria air pollutants emissions in the city. However, at a programmatic-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 basinwide 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 provided in Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft EIR.

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." The numerical emission indicators are based on the recognition that the air basin 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.

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 (note Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft EIR provides the SJVAPCD's amicus brief, and South Coast Air Quality Management District's amicus brief).

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

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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 Ambient Air Quality Standards (AAQS) 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 EIR 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. However, because cumulative development within the City would exceed the regional significance thresholds, the General Plan 2042 could contribute to an increase in health effects in the basin until the attainment standards are met in the SJVAB.

In summary, as described previously, implementation of the proposed project would generate emissions that would exceed the SJVAPCD regional significance thresholds for VOC, NO_x, and CO. The proposed General Plan 2042 includes goals, policies, and actions to reduce these long-term regional criteria air pollutant emissions. In addition, Mitigation Measure AIR-2a requires potential future development in Los Banos that is subject to CEQA (i.e., is a discretionary project) to prepare and submit a technical assessment evaluating potential project operation phase-related air quality impacts to the City of Los Banos for review and approval prior to project approval by the City. Where the technical assessment determines the SJVAPCD-adopted thresholds are exceeded, the applicants for new development projects would be required to incorporate mitigation measures to reduce air pollutant emissions during operational activities. Due to the programmatic nature of this EIR, the impact is found to be 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. Due to the programmatic nature of the proposed project, no additional mitigating policies are available, and the impact is considered *significant and unavoidable*.

Significance with Mitigation: Significant and unavoidable.

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 associated with asphalt paving. A discussion of health effects associated with air pollutant emissions generated by construction activities is included under Section 4.3.1.2, *Air Pollutants of Concern*.

Construction activities associated with the General Plan 2042 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 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 General Plan 2042, 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 General Plan 2042, 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 EIR Study Area would cumulatively contribute to construction (short-term) regional criteria air pollutant emissions impacts, the proposed General Plan 2042 Parks, Open Space, and Conservation (P) Element includes a goal and a policy that require local planning and development decisions to consider impacts from emissions and to reduce those emissions. The following General Plan 2042 goal and policy would minimize potential adverse impacts related to construction phase (short-term) regional criteria air pollutant emissions.

- **Goal P-11.** Maintain and improve air quality within Los Banos.
 - **Policy P-P11.6.** Require developers to implement best management practices to reduce air pollutant emissions due to construction work and operation of equipment.

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- During clearing, grading, earth-moving or excavation operations, fugitive dust emissions shall be controlled by regular watering, paving of construction roads, or other dust-preventive measures.
- All materials excavated or graded shall be either sufficiently watered or covered by canvas or plastic sheeting to prevent excessive amounts of dust.
- All materials transported off-site shall be either sufficiently watered or covered by canvas or plastic sheeting to prevent excessive amounts of dust.
- All motorized vehicles shall have their tires watered before exiting a construction site.
- The area disturbed by demolition, clearing, grading, earth-moving, or excavation shall be minimized at all times.
- All construction-related equipment shall be maintained in good working order to reduce exhaust from this equipment.

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 air quality impact assessment. To the extent applicable under Rule 9510 for each individual development, SJVAPCD would require calculation of the construction emissions from the development. The purpose of the air quality impact assessment 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 4101 and 4601 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 General Plan 2042 would likely continue to exceed the SJVAPCD thresholds for some projects. Therefore, construction-related regional air quality impacts associated with implementation of the proposed project are deemed *significant*.

Impact AIR-2b: Construction activities associated with buildout of the General Plan 2042 would generate substantial short-term criteria air pollutant emissions that would exceed the San Joaquin Valley Unified Air Pollution Control District regional significance thresholds and cumulatively contribute to the nonattainment designations of the San Joaquin Valley Air Basin.

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 Los Banos 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

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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 Los Banos 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 Los Banos. 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 off-site 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 using 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 off-site.
 - 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 using sufficient water or chemical stabilizer/suppressant.

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- 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.

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 significance thresholds during this time and cumulatively contribute to the nonattainment designations of the SJVAB. Implementation of Mitigation Measure AIR-2b, in addition to applicable regulatory measures (e.g., SJVAPCD Rules 9510 and Regulation VIII) and General Plan 2042 goals and policies listed previously 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, 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. Due to the programmatic nature of the proposed project, no additional mitigating policies are available, and the impact is considered *significant and unavoidable*.

AIR-3	Implementation of the proposed project could expose sensitive receptors to substantial pollutant concentrations.
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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 EIR Study Area from area/stationary sources and mobile sources. The following describes potential localized operational air quality impacts from implementation of the proposed 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. The GAMAQI previously required CO hotspot monitoring. 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. Furthermore, under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—to generate a significant CO impact.⁴⁶ Implementation of the proposed project would not result in hourly traffic increases of this magnitude. This net increase would be below the screening criteria. Furthermore, as described in Chapter 4.15, *Transportation*, of this Draft EIR, the General Plan 2042 Economic Development (ED) Element, Land Use (LU) Element, and the Circulation (C) Element include land use designations, goals, policies, and actions that will help reduce VMT and therefore reduce emissions from automobiles. Please see impact discussion TRAN-2 for a complete list of these goals, policies, and actions.

In summary, implementation of the proposed project is not anticipated to produce the volume of traffic required to generate a CO hotspot. Therefore, implementation of the proposed project would not have the potential to substantially increase CO hotspots at intersections in the vicinity of the EIR Study Area. Accordingly, impacts would be *less than significant* and no mitigation measures are required.

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 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 10 in 1 million cancer risk and 1 for acute risk at the maximally exposed individual. Though these sources would incrementally contribute to the General Plan 2042 inventory on an individual basis, they would be mitigated to the standards identified above. Overall, combined with the standards and permitting

⁴⁶ Bay Area Air Quality Management District (BAAQMD), 2017. California Environmental Quality Act: Air Quality Guidelines, May.

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processes described previously, impacts related to permitted stationary sources of TACs are considered *less than significant* and no mitigation measures are required.

Warehouse/Industrial Land Uses

Mobile sources of TACs are not regulated by SJVAPCD. The primary mobile source of TACs within the EIR Study 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 TRUs for cold storage. New land uses in the EIR Study Area that would be permitted under the proposed project 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 land uses could be near existing air quality sensitive receptors within and outside the EIR Study Area. Portions of areas designated Industrial within the EIR Study Area are close or adjacent to areas designated for residential use. In addition, trucks would travel on regional transportation routes through the SJVAB, contributing to near-roadway DPM concentrations.

The proposed General Plan 2042 Parks, Open Space, and Conservation (P) Element includes a goal and policies that require local planning and development decisions to consider impacts to air quality sensitive receptors. The following General Plan 2042 goal and policies would minimize potential adverse impacts related to operational phase emissions to air quality sensitive receptors.

- **Goal P-13.** Ensure equitable and healthy air quality among all communities in the city so that all residents, including those with high sensitivity to unhealthy air, can live in their community without facing disproportionately high risks of respiratory disease and other health problems.
 - **Policy P-P13.1.** Require a cumulative health risk assessment, including consideration of truck traffic impacts, when a project potentially affects sensitive receptors in disadvantaged communities, and require appropriate mitigation based on the findings of the assessment.
 - **Policy P-P13.2.** When evaluating health risk impacts of projects in disadvantaged communities, use a cancer risk of 1.0 per million as the threshold for a significant impact.
 - **Policy P-P13.3.** Require new development to site sensitive receptors, such as homes, schools, playgrounds, sports fields, childcare centers, senior centers, and long-term healthcare facilities as far away as possible from significant pollution sources.
 - **Policy P-P13.4.** When evaluating air quality impacts of projects in disadvantaged communities, use thresholds of significance that match or are more stringent than the air quality thresholds of significance identified in the current San Joaquin Valley Air Pollution Control District Air Quality Guidelines.
 - **Policy P-P13.7.** Require warehouse and distribution facilities to provide adequate on-site truck parking to prevent idling, and require refrigerated warehouses to provide generators for refrigerated trucks.

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As a long-range planning document, the General Plan 2042 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 uses is not known, the quantity of TACs generated by the General Plan 2042 is also unknown.

Furthermore, for warehouse development projects, cancer risk is predominately 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. Therefore, health risk impacts from non-permitted sources associated with development of industrial and commercial land uses are considered *significant*.

Impact AIR-3a: Implementation of the General Plan 2042 could expose air quality-sensitive receptors to substantial toxic air contaminant concentrations from non-permitted sources during operation.

Mitigation Measure AIR-3a: Prior to discretionary approval by the City of Los Banos for development projects subject to California Environmental Quality Act (CEQA) review (i.e., non-exempt projects), applicants for industrial or warehousing land uses in addition to 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 based on the California Air Resources Board recommendations for siting new sensitive land uses) shall prepare an operational health risk assessment (HRA) to the City of Los Banos for review and approval. If the operational health risk assessment determines the new development poses health hazards that increase the incremental cancer risk above the threshold established by the San Joaquin Valley Unified Air Pollution Control District (SJVAPCD), project-specific mitigation measures shall be integrated to reduce cancer and acute risk below the SJVAPCD threshold.

The operational HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and the SJVAPCD. If the operational HRA shows that the incremental cancer risk exceeds 20 in a million, the appropriate noncancer hazard index exceeds 1.0; or the thresholds as determined by the SJVAPCD at the time a project is considered, the project applicant will be required to identify and demonstrate that measures are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms.

Measures to reduce risk impacts may include, but are not limited to:

- Restricting idling on-site beyond Air Toxic Control Measures idling restrictions, as feasible.
- Electrifying warehousing docks.
- Requiring use of newer equipment and/or vehicles.
- Restricting off-site truck travel through the creation of truck routes.

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The operational HRA shall be submitted to the City of Los Banos. Measures identified in the operational HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the proposed project.

Significance with Mitigation: Significant and unavoidable. Potential future development from implementation of the proposed project could result in a substantial increase in DPM near existing or planned air quality-sensitive receptors (e.g., children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases, and disadvantaged communities). Mitigation Measure AIR-3a would ensure mobile sources of emissions not covered under SJVAPCD permits are considered during subsequent project-level environmental review by the City of Los Banos. Potential future development projects in the city that have the potential to generate potentially significant risks associated with the release of TACs are required to undergo an analysis of their potential health risks associated with TACs based upon the specific details of each individual project. Although individual projects would be required to have less-than-significant impacts, cumulative development in the city would result in an increase in DPM concentrations and could increase the environmental burden on sensitive populations, including environmental justice communities, in the SJVAB. Overall, because there are no specific development projects identified or approved under the General Plan 2042 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 are considered a *significant and unavoidable* cumulative impact. However, 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.

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 thresholds for some projects. Therefore, construction-related health risk impacts associated with the proposed project are considered *significant*.

Impact AIR-3b: Construction activities associated with potential future development from implementation of the General Plan 2042 could expose nearby air quality-sensitive receptors to substantial concentrations of toxic air contaminants during construction.

Mitigation Measure AIR-3b: Implement Mitigation Measure AIR-2b.

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 could expose air quality-sensitive receptors to construction emissions. As previously described in Impact AIR-2b, implementation of Mitigation Measure AIR-2b, in addition to 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-2b, 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. Due to the programmatic nature of the proposed project, no additional mitigating policies are available, and the impact is considered *significant and unavoidable*.

AIR-4	Implementation of the proposed project could result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.
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The following discusses potential operation- and construction-related odor impacts associated with implementation of the proposed project.

Operational-Related Odors

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 4.3-8, *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.

As shown previously in Table 4.3-8, industrial land uses are the primary type of land uses that have the potential to generate objectionable odors. Future environmental review could be required for industrial projects listed in the table 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

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passing air through a drying agent followed by two successive beds of activated carbon to generate odor-free air. Facilities listed in the table 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. Odor impacts could be *significant* for new projects that have the potential to generate odors within the odor screening distances.

Impact AIR-4: Operation of new industrial land uses accommodated under the proposed project has the potential to create objectionable odors that could affect a substantial number of people.

Mitigation Measure AIR-4: Prior to project approval, if it is determined during project-level environmental review that a project has the potential to emit nuisance odors beyond the property line, an Odor Management Plan shall be prepared and submitted by the project applicant prior to project approval to ensure compliance with San Joaquin Valley Unified Air Pollution Control District Rule 4102. The following facilities that are within the buffer distances specified from sensitive receptors (in parentheses) have the potential to generate substantial odors:

- | | |
|--|--|
| ▪ Wastewater Treatment Plant (2 miles) | ▪ Chemical Manufacturing (1 mile) |
| ▪ Sanitary Landfill (1 mile) | ▪ Fiberglass Manufacturing (1 mile) |
| ▪ Transfer Station (1 mile) | ▪ Painting/Coating Operations (1 mile) |
| ▪ Composting Facility (1 mile) | ▪ Food Processing Facility (1 mile) |
| ▪ Petroleum Refinery (2 miles) | ▪ Feed Lot/ Dairy (1 mile) |
| ▪ Asphalt Batch Plant (1 mile) | ▪ Rendering Plant (1 mile) |

The Odor Management Plan shall be submitted to the City of Los Banos. The Odor Management Plan prepared for these facilities shall identify control technologies that will be used to reduce potential odors to acceptable levels, including appropriate enforcement mechanisms. Control technologies may include, but are not limited to, scrubbers (e.g., air pollution control devices) at an industrial facility. Control technologies identified in the Odor Management Plan shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

Significance with Mitigation: Less than significant. Mitigation Measure AIR-4 would ensure that sources identified by SJVAPCD are mitigated through adherence to an Odor Management Plan and comply with SJVAPCD Rule 4102. Therefore, Impact AIR-4a would be mitigated to a *less-than-significant* level.

Residential and Other Land Uses

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 are considered *less than significant*.

Significance without Mitigation: Less than significant.

Construction-Related Odors

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*.

Significance without Mitigation: Less than significant.

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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Criteria Air Pollutants

The cumulative area of analysis is the SJVAB. As identified in Section 4.3.1, *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 exceed SJVAPCD's project-level significance thresholds during construction and operation and would contribute to the nonattainment designations of the SJVAB. The SJVAB is currently designated a nonattainment area for O₃ and particulate matter (PM₁₀ and PM_{2.5}). Therefore, in combination with past, present, and reasonably foreseeable projects elsewhere within the SJVAB, the proposed project, even with implementation of applicable regulations and Mitigation Measures AIR-2a, AIR-2b, AIR-3a, and AIR-3b, would result in a *significant* cumulative impact with respect to air quality.

Toxic Air Contaminants

Buildout of the General Plan 2042 would generate new sources of TAC near existing or planned sensitive receptors. 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. Mitigation Measure AIR-5 would ensure mobile sources of TACs not covered by SJVAPCD permits are considered during subsequent project-level environmental review by the City of Los Banos. 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 General Plan 2042 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 is *significant*.

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Impact AIR-5: Implementation of the General Plan 2042 would generate a substantial increase in emissions that exceeds the San Joaquin Valley Unified Air Pollution Control District significance thresholds and would cumulatively contribute to the nonattainment designations and health risk in the San Joaquin Valley Air Basin.

Mitigation Measure AIR-5: Implement Mitigation Measures AIR-2a, AIR-2b, AIR-3a, AIR-3b, and AIR-4.

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 Impacts AIR-2 and AIR-3). Air quality impacts identified in the discussion under Impacts 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-3a, and AIR-3b, identified previously to reduce project-related emissions, would reduce impacts to the extent feasible. Due to the programmatic nature of the proposed project, no additional mitigation measures are available. 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.

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4.4 BIOLOGICAL RESOURCES

This chapter describes the potential impacts to biological resources associated with the adoption and implementation of the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential impacts to biological resources, and identifies General Plan policies that could minimize any potentially significant impacts.

This chapter is primarily based on the *Biological Resources Assessment for the Los Banos General Plan Update* (BRA) prepared by ECORP Consulting in April 2022. The BRA is attached as Appendix C, *Biological Resources Data*, to this Draft Environmental Impact Report (EIR).¹

4.4.1 ENVIRONMENTAL SETTING

4.4.1.1 REGULATORY FRAMEWORK

Federal Regulations

Federal Endangered Species Act

The federal Endangered Species Act (ESA) protects plants and animals that are listed as endangered or threatened by the United States Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS). Section 9 of ESA prohibits the taking of listed wildlife, where “take” is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging up, damaging, or destroying any listed plant on nonfederal land in knowing violation of state law (16 US Code [USC] 1538). Under Section 7 of ESA, federal agencies are required to consult with the USFWS or NMFS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a Biological Opinion (BO), the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise lawful activity provided the activity will not jeopardize the continued existence of the species. The BO may recommend *reasonable and prudent alternatives* to the project to avoid jeopardizing or adversely modifying habitat. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary, provided a Habitat Conservation Plan (HCP) is developed.

Critical habitat is defined in Section 3 of ESA as:

1. The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the ESA, on which are found those physical or biological features essential to the conservation of the species and that may require special management considerations or protection; and

¹ ECORP Consulting, Inc., April 2022. *Biological Resources Assessment for the Los Banos General Plan Update*.

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2. Specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Critical habitat designations identify, to the extent known and using the best scientific data available, habitat areas that provide primary physical and biological features essential to the conservation of the species and that may require special management considerations or protection. These include, but are not limited to, the following:

- Space for individual and population growth and for normal behavior;
- Food, water, air, light, minerals, or other nutritional or physiological requirements;
- Cover or shelter;
- Sites for breeding, reproduction, or rearing (or development) of offspring; and
- Habitats that are protected from disturbance or are representative of the historic, geographical, and ecological distributions of a species.

Essential Fish Habitat

Essential Fish Habitat (EFH) was defined by the U.S. Congress in the 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act, or Magnuson-Stevens Act, as *“those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.”* Implementing regulations clarified that waters include all aquatic areas and their physical, chemical, and biological properties; substrate includes the associated biological communities that make these areas suitable for fish habitats, and the description and identification of EFH should include habitats used at any time during the species’ life cycle. EFH includes all types of aquatic habitat, such as wetlands, coral reefs, sand, seagrasses, and rivers.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The protections of the MBTA extend to disturbances that result in abandonment of a nest with eggs or young. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR part 13, General Permit Procedures, and 50 CFR part 21, Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

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Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act of 1940, as amended, provides for the protection of bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit. The USFWS may authorize take of bald eagles and golden eagles for activities where the take is associated with, but not the purpose of, the activity and cannot practicably be avoided.

Federal Clean Water Act

The purpose of the federal Clean Water Act (CWA) is to “*restore and maintain the chemical, physical, and biological integrity of the nation’s waters.*” Section 404 of the CWA prohibits the discharge of dredged or fill material into waters of the U.S. without a permit from the U.S. Army Corps of Engineers (USACE). The definition of waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas:

“that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3 7b).

The U.S. Environmental Protection Agency (USEPA) also has authority over wetlands and may override a USACE permit.

Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

State Regulations

California Endangered Species Act

The California ESA or CESA (California Fish and Game Code Sections 2050 to 2116) generally parallels the main provisions of the federal ESA, but unlike its federal counterpart, the California ESA also applies the take prohibitions to species proposed for listing (called *candidates* by the state). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. *Take* is defined in Section 86 of the California Fish and Game Code as “*hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.*” The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with the California Department of Fish and Wildlife (CDFW) to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered, threatened, or candidate species or result in destruction or adverse modification of essential habitat. For local agency projects with no discretionary state approvals, Section 2081 allows CDFW to authorize incidental take permits if certain conditions are

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met. Permittees must implement species-specific minimization and avoidance measures, and fully mitigate the impacts of the project.

Fully Protected Species

The State of California first began to designate species as *fully protected* prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the state and/or federal ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code Section 4700 for mammals, Section 3511 for birds, Section 5050 for reptiles and amphibians, and Section 5515 for fish) provide that fully protected species may not be taken or possessed at any time. California Fish and Game Code prohibits any state agency from issuing incidental take permits for fully protected species. The CDFW will issue licenses or permits for take of these species for necessary scientific research or live capture and relocation pursuant to the permit.

California Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 was created with the intent to “*preserve, protect and enhance rare and endangered plants in this State.*” The NPPA is administered by CDFW and provided in California Fish and Game Code Section 1900-1913. The Fish and Wildlife Commission has the authority to designate native plants as *endangered* or *rare* and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code Section 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

Birds of Prey

Sections 3800, 3513, and 3503 of the California Fish and Game Code specifically protect birds of prey. Section 3800 states that it is unlawful to take nongame birds, such as those occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds, except when in accordance with regulations of the commission or a mitigation plan approved by CDFW for mining operations. Section 3513 specifically prohibits the take or possession of any migratory nongame bird as designated in the MBTA.

Section 3503 of the California Fish and Game Code prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Additionally, Subsection 3503.5 prohibits the take, possession, or destruction of any birds and their nests in the orders Strigiformes (owls) or Falconiformes (hawks and eagles). These provisions, along with the federal MBTA, serve to protect nesting raptors.

California Streambed Alteration Notification/Agreement

Section 1602 of the California Fish and Game Code requires that a Streambed Alteration Agreement (SAA) be obtained from CDFW for “*any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.*” CDFW reviews the proposed actions and, if necessary, submits proposed measures to protect affected fish and wildlife resources to the applicant. The SAA is the final proposal mutually agreed upon by CDFW and the applicant. Projects that

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require an SAA often also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the SAA overlap.

Species of Special Concern

The CDFW defines Species of Special Concern (SSC) as a species, subspecies, or distinct population of an animal native to California that is not legally protected under ESA, the California ESA, or the California Fish and Game Code but currently satisfies one or more of the following criteria:

- The species has been completely extirpated from the state or, as in the case of birds, it has been extirpated from its primary seasonal or breeding role.
- The species is listed as federally (but not state) threatened or endangered, or meets the state definition of threatened or endangered but has not formally been listed.
- The species has or is experiencing serious (nonscyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status.
- The species has naturally small populations that exhibit high susceptibility to risk from any factor that if realized, could lead to declines that would qualify it for state threatened or endangered status.
- SSC are typically associated with threatened habitats. Project-related impacts to SSC and state-threatened or endangered species are considered significant under the California Environmental Quality Act (CEQA).

California Rare Plant Ranks

The California Native Plant Society (CNPS) maintains the Inventory of Rare and Endangered Plants of California,² which provides a list of plant species native to California that are threatened with extinction, have limited distributions, or have low populations. Plant species meeting one of these criteria are assigned to one of six California Rare Plant Ranks (CRPR). The rank system was developed in collaboration with government, academia, nongovernmental organizations, and private-sector botanists, and is jointly managed by CDFW and the CNPS. The CRPRs are currently recognized in the California Natural Diversity Database (CNDDB). The following are definitions of the CNPS CRPRs:

- Rare Plant Rank 1A – presumed extirpated in California and either rare or extinct elsewhere.
- Rare Plant Rank 1B – rare, threatened, or endangered in California and elsewhere.
- Rare Plant Rank 2A – presumed extirpated in California, but more common elsewhere.
- Rare Plant Rank 2B – rare, threatened, or endangered in California but more common elsewhere.
- Rare Plant Rank 3 – a review list of plants about which more information is needed.
- Rare Plant Rank 4 – a watch list of plants of limited distribution.

² California Native Plant Society, 2022. Inventory of Rare and Endangered Plants in California (online edition, v9-01 1.0), <https://rareplants.cnps.org>, accessed February 2022.

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Additionally, the CNPS has defined Threat Ranks that are added to the CRPR as an extension. Threat Ranks designate the level of threat on a scale of 1 through 3, with 1 being the most threatened and 3 being the least threatened. Threat Ranks are generally present for all plants ranked 1B, 2B, or 4, and for the majority of plants ranked 3. Plant species ranked 1A and 2A (presumed extirpated in California), and some species ranked 3, which lack threat information, do not typically have a Threat Rank extension. The following are definitions of the CNPS Threat Ranks:

- Threat Rank 0.1 – Seriously threatened in California (more than 80 percent of occurrences threatened/high degree and immediacy of threat).
- Threat Rank 0.2 – Moderately threatened in California (20 to 80 percent of occurrences threatened/moderate degree and immediacy of threat).
- Threat Rank 0.3 – Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known).

Factors such as habitat vulnerability and specificity, distribution, and condition of occurrences are considered in setting the Threat Rank; differences in Threat Ranks do not constitute additional or different protection.³ Depending on the policy of the lead agency, substantial impacts to plants ranked 1A, 1B, or 2 are typically considered significant under CEQA Guidelines Section 15380. Significance under CEQA is typically evaluated on a case-by-case basis for plants ranked 3 or 4.

Porter-Cologne Water Quality Control Act

The RWQCB implements water quality regulations under the federal CWA and the Porter-Cologne Water Quality Control Act. These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Stormwater NPDES General Construction Permit for discharges of stormwater runoff associated with construction activities. General Construction Permits for projects that disturb one or more acres of land require development and implementation of a Stormwater Pollution Prevention Plan. Under the Porter-Cologne Water Quality Control Act, the RWQCB regulates actions that would involve “*discharging waste, or proposing to discharge waste, within any region that could affect the water of the state*” (Water Code 13260(a)). Waters of the State are defined as “*any surface water or groundwater, including saline waters, within the boundaries of the state*” (Water Code 13050 [e]), and includes waters that are not regulated by the USACE due to a lack of connectivity with a navigable water body. In 2021, the First Appellate District of the California Courts of Appeal issued an opinion that interpreted the RWQCB’s authority to extend to discharges of dredge and fill materials into waters of the State. The RWQCB may require issuance of Waste Discharge Requirements for these activities.

³ California Native Plant Society, 2022. Inventory of Rare and Endangered Plants in California (online edition, v9-01 1.0), <https://rareplants.cnps.org>, accessed February 2022.

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California Environmental Quality Act

Per CEQA Guidelines Section 15380, a species not protected on a federal or state list may be considered rare or endangered if the species meets certain specified criteria. These criteria follow the definitions in the federal and California ESAs, and Sections 1900-1913 of the California Fish and Game Code, which deal with rare or endangered plants or animals. Section 15380 was included in the CEQA Guidelines primarily to deal with situations where a project under review may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW.

Regional Regulations

Merced County General Plan

The Natural Resources (NR) Element of the Merced County General Plan provides policy context for the County to manage and preserve natural resources. Goal NR-1 is to preserve and protect, through coordination with the public and private sectors, the biological resources of the county. Policies that support Goal NR-1 include the following:

- **Policy NR-1.1: Habitat Protection.** Identify areas that have significant long-term habitat and wetland values including riparian corridors, wetlands, grasslands, rivers and waterways, oak woodlands, vernal pools, and wildlife movement and migration corridors, and provide information to landowners.
- **Policy NR-1.2: Protect Natural Lands.** Identify and support methods to increase the acreage of protected natural lands and special habitats, including but not limited to, wetlands, grasslands, vernal pools, and wildlife movement and migration corridors, potentially through the use of conservation easements.
- **Policy NR-1.3: Forest Protection.** Preserve forests, particularly oak woodlands, to protect them from degradation, encroachment, or loss.
- **Policy NR-1.4: Important Vegetative Resource Protection.** Minimize the removal of vegetative resources which stabilize slopes, reduce surface water runoff, erosion, and sedimentation.
- **Policy NR-1.5: Wetland and Riparian Habitat Buffer.** Identify wetlands and riparian habitat areas and designate a buffer zone around each area sufficient to protect them from degradation, encroachment, or loss.
- **Policy NR-1.6: Terrestrial Wildlife Mobility.** Encourage property owners within or adjacent to designated habitat connectivity corridors that have been mapped or otherwise identified by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service to manage their lands in accordance with such mapping programs. In the planning and development of public works projects that could physically interfere with wildlife mobility, the County shall consult with the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service to determine the potential for such effects and implement any feasible mitigation measures.
- **Policy NR-1.7: Agricultural Practices.** Encourage agricultural, commercial, and industrial uses and other related activities to consult with environmental groups in order to minimize adverse effects to important or sensitive biological resources.

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- **Policy NR-1.8: Use of Native Plant Species for Landscaping.** Encourage the use of native plant species in landscaping, and, where the County has discretion, require the use of native plant species for landscaping.
- **Policy NR-1.9: Rural to Urban Redesignations.** Carefully consider the potential impacts on significant habitats from new development when redesignating land from a rural to an urban use.
- **Policy NR-1.10: Aquatic and Waterfowl Habitat Protection.** Cooperate with local, State, and Federal water agencies in their efforts to protect significant aquatic and waterfowl habitats against excessive water withdrawals or other activities that would endanger or interrupt normal migratory patterns or aquatic habitats.
- **Policy NR-1.11: On-Going Habitat Protection and Monitoring.** Cooperate with local, State, and Federal agencies to ensure that adequate on-going protection and monitoring occurs adjacent to rare and endangered species habitats or within identified significant wetlands.
- **Policy NR-1.12: Wetland Avoidance.** Avoid or minimize loss of existing wetland resources by careful placement and construction of any necessary new public utilities and facilities, including roads, railroads, high speed rail, sewage disposal ponds, gas lines, electrical lines, and water/wastewater systems.
- **Policy NR-1.13: Wetland Setbacks.** Require an appropriate setback, to be determined during the development review process, for developed and agricultural uses from the delineated edges of wetlands.
- **Policy NR-1.14: Temporary Residential Uses.** Ensure that buildings and structures approved for temporary residential use in significant wetland areas are not converted to permanent residential uses.
- **Policy NR-1.15: Urban Forest Protection and Expansion.** Protect existing trees and encourage the planting of new trees in existing communities. Adopt an Oak Woodland Ordinance that requires trees larger than a specified diameter that are removed to accommodate development be replaced at a set ratio.
- **Policy NR-1.16: Hazardous Waste Residual Repository Location.** Require new hazardous waste residual repositories (e.g., contaminated soil facilities) to be located at least a mile from significant wetlands, designated sensitive species habitat, and State and Federal wildlife refuges and management areas.
- **Policy NR-1.17: Agency Coordination.** Consult with private, local, State, and Federal agencies to assist in the protection of biological resources and prevention of degradation, encroachment, or loss of resources managed by these agencies.

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Local Regulations

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives to minimize adverse impacts to biological resources in Los Banos. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions related to biological resources are included in Title 9, *Planning and Zoning*, and Title 10, *Parks and Recreation*, as follows:

- **Title 9, *Planning and Zoning*, Chapter 6, *City of Los Banos Water Efficient Landscape Ordinance*, Section 9-6.3.06, *Landscape Design Plan*.** This section outlines the requirements for the efficient use of water and use of plant materials to protect and provide habitat for beneficial insects and other wildlife.
- **Title 10, *Parks and Recreation*, Chapter 1, *Trees, Shrubs, and Plants*.** This chapter includes tree regulations that will maintain the ecological balance of the area and protect Historical and Heritage Trees in the city.
 - **Section 10-1.08, *Protection of Trees During Building Construction, Repairs, or Removal*.** This section establishes conditions that apply for the purpose of safeguarding trees during construction.
 - **Section 10-1.09, *The Designation and Protection of Heritage Trees*.** This section recognizes the ecological value of the tree or group of trees, such as food, nesting, habitat, protection and shade for wildlife or other plant species, and includes requirements for tree permits. This section also recognizes the role trees have in abating soil and slope erosion.

4.4.1.2 EXISTING CONDITIONS

Methodology

Available literature and mapping of biological resources reviewed included the CNDDDB, the Federal Endangered and Threatened Species list, the CNPS online Inventory of Rare and Endangered Plants of California, and the National Oceanic and Atmospheric Administration (NOAA) Critical Habitat and Essential Fish Habitat Mapper.

Due to the size of the EIR Study Area, a field reconnaissance survey was not conducted. Determinations regarding each species' potential to occur were made based on information available through the CNDDDB, available literature, and professional judgment.

Site Characteristics and Land Use

The EIR Study Area is within relatively flat terrain with an elevational range of approximately 85 to 140 feet above mean sea level in the San Joaquin Valley Subregion of the Great Central Valley. The central portion of the EIR Study Area is occupied by the city of Los Banos, which includes a mix of commercial, industrial, residential, and recreational land uses. Biological resources associated with these developed areas are generally limited to common species tolerant of urban environments. The undeveloped portion

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of the EIR Study Area consists primarily of agriculture mixed with low-density residential uses. Surrounding land uses include agriculture, outdoor recreation, and managed wildlife areas.

Plant Communities

Mixed Agriculture

A large portion of the EIR Study Area consists of mixed agriculture, varying from row crops to orchards, vineyards, and irrigated pasture. Row crops comprise the majority of the agricultural lands. Biodiversity within this plant community type is mostly homogenous and dominant plant species vary from parcel to parcel. Many species of rodents and birds are adapted to agricultural areas. Agricultural fields may be used by foraging raptors and wintering waterfowl. Depending on the farming practices, the plant community may offer foraging and cover opportunities for special-status animal species, such as lesser sandhill crane (*Antigone canadensis canadensis*). Flooded pastures, ponds, and ditches associated with agricultural communities also provide potential habitat for aquatic species such as giant garter snake (*Thamnophis gigas*).

Ruderal

The ruderal plant community is dominated by species that are well adapted and have naturalized in areas of frequent disturbance or urbanization. Ruderal species are typically non-native and invasive plant species, but some native species can occur. This plant community can be found throughout the EIR Study Area and are common along roadsides and irrigation ditches or within firebreaks.

Mixed Riparian Woodland

A mixed riparian woodland occurs along the Los Banos Creek, which flows through the western portion of the EIR Study Area. This vegetation community consists of an intermittent to dense canopy typically dominated by oak (*Quercus* sp.), cottonwood (*Populus* sp.), and willow (*Salix* sp.). The mixed riparian woodland provides roosting, foraging, and cover habitat for numerous species of birds and waterfowl and provides suitable habitat for some special-status species, such as western pond turtle (*Actinemys marmorata*).

Non-native Annual Grassland

Non-native grassland is a plant community dominated by non-native grasses that have naturalized and can be found within fallow parcels of the EIR Study Area. Wildlife use of annual grasslands includes common species such as black-tailed jackrabbits (*Lepus californicus*), California vole (*Microtus californicus*), and coyote (*Canis latrans*). This plant community can provide habitat for burrowing animals and some special-status plant and wildlife species, such as San Joaquin kit fox (*Vulpes macrotis mutica*). It also occurs in conjunction with aquatic habitats such as vernal pools or seasonal wetlands.

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Fresh Emergent Wetland

Fresh emergent wetlands are primarily limited to the far eastern and northern portions of the EIR Study Area that overlaps with the Grassland Ecological Area (GEA). Fresh emergent wetlands are characterized by vegetation adapted to continually or seasonally flooded areas. This vegetation type is dominated by perennial monocots that may grow more than six feet tall. Fresh emergent wetlands support a high diversity of wildlife, providing food, water, and cover for numerous birds, mammals, reptiles, and amphibians. Special-status species that may occur in this plant community include giant garter snake, lesser sandhill crane, and Aleutian Canada goose (*Branta canadensis leucopareia*).

Aquatic Resources

According to the California Aquatic Resource Inventory (CARI), four aquatic feature types have been mapped within the EIR Study Area: fluvial unnatural; fluvial natural; lake, reservoir, and natural vegetation; and pond and associated vegetation. The fluvial unnatural aquatic feature type corresponds to the irrigation canals and drainage ditches found throughout the EIR Study Area. Fluvial natural corresponds to portions of the Los Banos Creek and the drainage channels within the managed wildlife areas in the eastern and northeastern portions of the EIR Study Area. Lake, reservoir, and natural vegetation corresponds to the larger ponds and wetlands within the managed wildlife areas in the eastern portions of the EIR Study Area. Pool and associated vegetation correspond to the smaller ponded areas along portions of the Los Banos Creek and Main Canal, and within the managed wildlife area.

The Los Banos Wildlife Area and North Grassland Wildlife Areas are northeast and east of the city, respectively, within the Grassland Resource Conservation District (GRCD). The 75,000 acres within the GRCD includes private agricultural land and wetlands managed with conservation easements as well as public lands, such as the Los Banos Wildlife Area and North Grassland Wildlife Area. Land within the GRCD is part of the largest contiguous block of wetlands remaining in California's Central Valley and is a major wintering ground for migratory waterfowl and shorebirds along the Pacific Flyway.⁴ The GRCD is within the larger GEA, which is recognized as a wetland of international importance under the Ramsar Convention on Wetlands.

Special-Status Species

The CNDDDB, CNPS, and USFWS database searches reported a total of 89 special-status species historically and/or potentially occurring within the EIR Study Area. Of the total, 30 special-status plants, 6 invertebrates, 2 amphibians, 4 reptiles, 23 birds, and 5 mammal species were found to have some potential to occur. The remaining listed special-status species were found to be absent and there is no suitable habitat in the EIR Study Area or the EIR Study Area is outside the known range for the species. These species are listed in Table 4.4.1, *Potentially Occurring Special-Status Species*.

⁴ Grassland Resource Conservation District (GRCD). 2022. "Who We Are" Available online at: gwdwater.org.

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TABLE 4.4-1 POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Species Name	Status (Federal/State/Other) ^a	Habitat Description	Survey Period	Potential to Occur On-Site
Plants				
Santa Clara thorn-mint (<i>Acanthomintha lanceolata</i>)	--/--/4.2	Rocky areas within often serpentinite chaparral, cismontane woodland, and coastal scrub	March – June	Absent. No suitable habitat on-site.
Forked fiddleneck (<i>Amsinckia furcata</i>)	--/--/4.2	Semi-barren loose shaly slopes in cismontane woodland and valley and foothill grassland	February – May	Potential to occur
California androsace (<i>Androsace elongata</i> ssp. <i>acuta</i>)	--/--/4.2	Chaparral, cismontane woodland, coastal scrub, meadows and seeps pinyon and juniper woodland, and valley and foothill grassland	March – June	Potential to occur
Alkali milk-vetch (<i>Astragalus tener</i> var. <i>tener</i>)	--/--/1B.2	Playas, mesic areas within valley and foothill grasslands, and alkaline vernal pools	March – June	Potential to occur
Heartscale (<i>Atriplex cordulata</i> var. <i>cordulata</i>)	--/--/1B.2	Alkaline or saline valley and foothill grasslands, meadows and seeps, and chenopod scrub communities	April – October	Potential to occur
Crownscale (<i>Atriplex coronata</i> var. <i>coronata</i>)	--/--/4.2	Alkaline, often clay substrates in chenopod scrub, valley and foothill grassland, and vernal pools	March – October	Potential to occur
Lost Hills crownscale (<i>Atriplex coronata</i> var. <i>vallicola</i>)	--/--/1B.2	Alkaline soils in chenopod scrub, valley and foothill grassland and vernal pools	April – September	Potential to occur
Lesser saltscale (<i>Atriplex minuscula</i>)	--/--/1B.1	Alkaline, sandy soils in chenopod scrub, playas, and valley and foothill grassland	May – October	Potential to occur
Vernal pool smallscale (<i>Atriplex persistens</i>)	--/--/1B.2	Alkaline vernal pools	June – October	Low potential to occur. Marginally suitable habitat present on-site
Lemmon's jewel flower (<i>Caulanthus lemmonii</i>)	--/--/1B.2	Pinyon and juniper woodland and valley and foothill grassland	February – May	Potential to occur
Parry's rough tarplant (<i>Centromadia parryi</i> ssp. <i>rudis</i>)	--/--/4.2	Alkaline, vernal mesic seeps in valley and foothill grassland and vernal pools, sometimes found on roadsides	May – October	Low potential to occur. Marginally suitable habitat present on-site
Hispid salty bird's-beak (<i>Chloropyron molle</i> ssp. <i>hispidum</i>)	--/--/1B.1	Alkaline soils in meadows and seeps, playas, and valley and foothill grasslands	June – September	Potential to occur
Brewer's clarkia (<i>Clarkia breweri</i>)	--/--/4.2	Often within serpentinite Chaparral, Cismontane woodland, and coastal scrub	April – June	Absent. No suitable habitat on-site
Rattan's cryptantha (<i>Cryptantha rattanii</i>)	--/--/4.3	Cismontane woodland, riparian woodland, and valley and foothill grassland	April – July	Potential to occur

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TABLE 4.4-1 POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Species Name	Status (Federal/State/Other) ^a	Habitat Description	Survey Period	Potential to Occur On-Site
Recurved larkspur (<i>Delphinium recurvatum</i>)	--/--/1B.2	Chenopod scrub, cismontane woodland, and valley and foothill grasslands	March – June	Potential to occur
Protruding buckwheat (<i>Eriogonum nudum</i> var. <i>indictum</i>)	--/--/4.2	Within clay or serpentinite areas of chaparral, chenopod scrub, and cismontane woodland	March – October	Absent. No suitable habitat on-site
Idria buckwheat (<i>Eriogonum vestitum</i>)	--/--/4.3	Valley and foothill grassland	April – August	Potential to occur
Delta button-celery (<i>Eryngium racemosum</i>)	--/CE/1B.1	Vernally mesic clay depressions in riparian scrub communities	June – October	Low potential to occur. Marginally suitable habitat present onsite
Spiny-sepaed buttoncelery (<i>Eryngium spinosepalum</i>)	--/--/1B.2	Swales, roadside ditches, vernal pools and valley and foothill grassland	April – June	Potential to occur
Hoover's spurge (<i>Euphorbia hooveri</i>)	FT/--/1B.2	Vernal pools	July – September	Low potential to occur. Marginally suitable habitat present onsite
Hogwallow starfish (<i>Hesperevax caulescens</i>)	--/--/4.2	Mesic areas with clay soil within valley and foothill grassland and shallow vernal pools; sometimes in alkaline areas	March – June	Low potential to occur. Marginally suitable habitat present onsite
Alkali-sink goldfields (<i>Lasthenia chrysanthra</i>)	--/--/1B.1	Alkaline vernal pools	February – April	Low potential to occur. Marginally suitable habitat present onsite
Ferris' goldfields (<i>Lasthenia ferrisiae</i>)	--/--/4.2	Alkaline and clay vernal pools	February – May	Low potential to occur. Marginally suitable habitat present onsite
Coulter's goldfields (<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>)	--/--/1B.1	Coastal marshes and swamps, playas, and vernal pools	February – June	Potential to occur
Serpentine leptosiphon (<i>Leptosiphon ambiguus</i>)	--/--/4.2	Usually serpentinite soils of Cismontane woodland, coastal scrub, and valley and foothill grassland	March – June	Low potential to occur. Marginally suitable habitat present onsite
Hall's bush-mallow (<i>Malacothamnus hallii</i>)	--/--/1B.2	Chaparral and coastal scrub	May – September	Absent. No suitable habitat on-site
Little mouseltail (<i>Myosurus minimus</i> ssp. <i>apus</i>)	--/--/3.1	Mesic areas of valley and foothill grassland and alkaline vernal pools	March – June	Potential to occur
Shining navarretia (<i>Navarretia nigelliformis</i> ssp. <i>radians</i>)	--/--/1B.2	Vernal pools within cismontane woodland and valley or foothill grassland	April – July	Potential to occur

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TABLE 4.4-1 POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Species Name	Status (Federal/State/Other) ^a	Habitat Description	Survey Period	Potential to Occur On-Site
Prostrate vernal pool navarretia (<i>Navarretia prostrata</i>)	--/--/1B.1	Mesic soils within coastal scrub, meadows and seeps, alkaline valley and foothill grassland, and vernal pools	April – July	Potential to occur
Colusa grass (<i>Neostapfia colusana</i>)	FT/CE/1B.1	Large vernal pools with adobe soils	May – August	Low potential to occur. Marginally suitable habitat present on-site
California alkali grass (<i>Puccinellia simplex</i>)	--/--/1B.2	Alkaline, vernal mesic areas and sinks, flats and lake margins within chenopod scrub, meadows and seeps, valley and foothill grassland, and vernal pools	March – May	Potential to occur
Sanford's arrowhead (<i>Sagittaria sanfordii</i>)	--/--/1B.2	Shallow marshes and freshwater swamps	May – October	Low potential to occur. Marginally suitable habitat present on-site
Chaparral ragwort (<i>Senecio aphanactis</i>)	--/--/2B.2	Chaparral, cismontane woodland, coastal scrub; sometimes in alkaline soils	January – April	Absent. No suitable habitat on-site
Arburua Ranch jewelflower (<i>Streptanthus insignis</i> ssp. <i>lyonia</i>)	--/--/1B.2	Grassland and chaparral habitat, usually on serpentine soils	March – May	Absent. No suitable habitat on-site
Slender-leaved pondweed (<i>Stuckenia filiformis</i> ssp. <i>alpina</i>)	--/--/2B.2	Assorted shallow freshwater marshes and swamps	May – July	Low potential to occur. Marginally suitable habitat present on-site
Wright's trichocoronis (<i>Trichocoronis wrightii</i> var. <i>wrightii</i>)	--/--/2B.1	Alkaline soils in meadows and seeps, marshes and swamps, riparian forest, and vernal pools	May – September	Low potential to occur. Marginally suitable habitat present on-site
Invertebrates				
Conservancy fairy shrimp (<i>Branchinecta conservatio</i>)	FE/--/--	Vernal pools/wetlands	November – April	Potential to occur
Longhorn fairy shrimp (<i>Branchinecta longiantenna</i>)	FE/--/--	Vernal pools/wetlands	November – April	Potential to occur
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT/--/--	Vernal pools/wetlands	November – April	Potential to occur

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TABLE 4.4-1 POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Species Name	Status (Federal/State/Other) ^a	Habitat Description	Survey Period	Potential to Occur On-Site
Monarch butterfly (<i>Danaus plexippus</i>)	FC/--/--	Adult monarchs west of the Rocky Mountains typically overwinter in sheltered wooded groves of Monterey pine, Monterey cypress, and gum eucalyptus along coastal California, then disperse in spring throughout California, Nevada, Arizona, and parts of Oregon and Washington. Adults require milkweed and additional nectar sources during the breeding season. Larval caterpillars feed exclusively on milkweed.	Any season	Potential to occur
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT/--/--	Elderberry shrubs	Any season	Potential to occur
Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	FE/--/--	Vernal pools/wetlands	November – April	Potential to occur
Fish				
Hardhead (<i>Mylopharodon conocephalus</i>)	--/--/SSC	Relatively undisturbed streams at low to mid elevations in the Sacramento-San Joaquin and Russian River drainages. In the San Joaquin River, scattered populations found in tributary streams, but only rarely in the valley reaches of the San Joaquin River.	N/A	Absent. No suitable habitat on-site
Steelhead (CA Central Valley DPS) (<i>Oncorhynchus mykiss</i>)	FT/--/--	Undammed rivers, streams, creeks.	N/A	Absent. No suitable habitat on-site
Amphibians				
California tiger salamander (Central California DPS) (<i>Ambystoma californiense</i>)	FT/CT/SSC	Vernal pools, wetlands (breeding) and adjacent grassland or oak woodland; needs underground refuge (e.g., ground squirrel and/or gopher burrows). Largely terrestrial as adults.	March – May	Potential to occur
Northern leopard frog (<i>Lithobates pipiens</i>)	--/--/SSC	Near permanent or semi-permanent water in a variety of habitats east of the Sierra Nevada- Cascade Crest. This highly aquatic species requires shoreline cover as well as submerged and emergent aquatic vegetation.	March – October	Absent. Outside of known range

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TABLE 4.4-1 POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Species Name	Status (Federal/State/Other) ^a	Habitat Description	Survey Period	Potential to Occur On-Site
Foothill yellow-legged frog (<i>Rana boylei</i>)	--/CE/SSC	Foothill yellow-legged frog can be active all year in warmer locations but may become inactive or hibernate in colder climates. At lower elevations, foothill yellow-legged frogs likely spend most of the year in or near streams. Adult frogs, primarily males, will gather along main-stem rivers during spring to breed.	May – October	Absent. No suitable habitat on-site
California red-legged frog (<i>Rana draytonii</i>)	FT/--/SSC	Lowlands or foothills at waters with dense shrubby or emergent riparian vegetation. Adults must have aestivation habitat to endure summer dry down.	May – November	Absent. Outside of known range
Western spadefoot (<i>Spea hammondi</i>)	--/--/SSC	California endemic species of vernal pools, swales, wetlands and adjacent grasslands throughout the Central Valley.	March – May	Potential to occur
Reptiles				
Northern legless lizard (<i>Anniella pulchra</i>)	--/--/SSC	The most widespread of California's <i>Anniella</i> species. Occurs in sandy or loose soils under sparse vegetation from Antioch south coastally to Ventura. Bush lupine is often an indicator plant, and two melanistic populations are known.	Generally spring, but depends on location and conditions	Low potential to occur. Marginally suitable habitat present on-site
Northwestern pond turtle (<i>Actinemys marmorata</i>)	--/--/SSC	Use ponds, streams, detention basins, and irrigation ditches. Requires basking sites and upland habitats up to 0.5 km from water for egg laying.	April – September	Potential to occur
Blunt-nosed leopard lizard (<i>Gambelia sila</i>)	FE/CE/FP	Occurs in sparsely vegetated alkali scrub habitats in the southern San Joaquin Valley. Uses mammal burrows, shrubs and other structures for shade.	April – July	Absent. No suitable habitat on-site
San Joaquin coachwhip (<i>Coluber flagellum ruddocki</i>)	--/--/SSC	Occur in open, dry, usually flat habitats in Valley grassland and saltbush scrub with little to no shrub cover in the San Joaquin Valley. A dietary generalist.	March – October	Low potential to occur. Marginally suitable habitat present on-site
Giant garter snake (<i>Thamnophis gigas</i>)	FT/CT/--	Freshwater ditches, sloughs, and marshes in the Central Valley.	April – October	Low potential to occur. Marginally suitable habitat present on-site except for managed wetland areas to east

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TABLE 4.4-1 POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Species Name	Status (Federal/State/Other) ^a	Habitat Description	Survey Period	Potential to Occur On-Site
Birds				
Aleutian cackling goose (<i>Branta hutchinsii leucopareia</i>)	Delisted/--/CDFW WL	Pasture, marsh (Sacramento/San Joaquin Valley and Delta)	October – March	Potential to occur. Suitable habitat present on-site
Clark's grebe (<i>Aechmophorus clarkii</i>)	--/--/BCC	Winters on salt or brackish bays, estuaries, sheltered seacoasts, freshwater lakes, and rivers. Breeds on freshwater to brackish marshes, lakes, reservoirs and ponds, with a preference for large stretches of open water fringed with emergent vegetation.	June – August (breeding)	Absent. No suitable habitat on-site
Yellow rail (<i>Coturnicops noveboracensis</i>)	--/--/BCC, SSC	Found in sedge meadows, dense stands of bulrush, high marshlands dominated by sedges and grasses (in California, found in Lassen, Plumas, Siskiyou, Modoc counties, and San Francisco Bay and Tomales Bay regions)	May – September	Absent. No suitable habitat on-site
Lesser sandhill crane (<i>Antigone canadensis canadensis</i>)	--/--/SSC	Breeds in Siberia, Alaska, and arctic Canada; winters in southwest US, including CA, south into Mexico. In winter, they forage in burned grasslands, pastures, and feed on waste grain in a variety of agricultural settings (e.g., corn, wheat, milo, rice, oats, and barley), tilled fields, recently planted fields, alfalfa fields, row crops and burned rice fields.	September – March (wintering)	Potential to occur. Suitable wintering habitat on-site
American avocet (<i>Recurvirostra americana</i>)	--/--/BCC	Nests in scrapes on the ground around wetlands, dikes/levees; or islands.	April – August	Potential to occur
Mountain plover (<i>Charadrius montanus</i>)	--/--/BCC, SSC	Breeds in the Great Plains/Midwestern US; winters in California, Arizona, Texas, and Mexico; wintering habitat in California includes tilled fields, heavily grazed open grassland, burned fields, and alfalfa fields.	September – March (wintering)	Potential to occur
Long-billed curlew (<i>Numenius americanus</i>)	--/--/BCC	Breeds east of the Cascades in Washington, Oregon, northeastern California (Siskiyou, Modoc, Lassen counties), east-central California (Inyo County), through Great Basin region into Great Plains. Winters in California, Texas, and Louisiana. Wintering habitat includes tidal mudflats and estuaries, wet pastures, sandy beaches, salt marsh, managed wetlands, evaporation ponds, sewage ponds, and grasslands.	September – March (wintering)	Potential to occur. Suitable wintering habitat on-site

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TABLE 4.4-1 POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Species Name	Status (Federal/State/Other) ^a	Habitat Description	Survey Period	Potential to Occur On-Site
Willet (<i>Tringa semipalmata</i>)	--/--/BCC	Breeds locally in interior of western North America. In California, breeding range includes the Klamath Basin and Modoc Plateau and portions of Mono and possibly Inyo counties. Breeding habitat includes prairies, wetlands and grasslands on semiarid plains; in uplands near brackish or saline wetlands; prefers temporary, seasonal, and alkali wetlands over semipermanent and permanent wetlands.	April – August	Absent. No suitable habitat on-site
Black tern (<i>Chlidonias niger</i>)	--/--/BCC, SSC	Breeding range includes northeastern California, Central Valley, Great Plains of U.S. and Canada; winters in Central and South America; nesting habitat includes shallow freshwater marsh with emergent vegetation, prairie sloughs, lake margins, river islands, and cultivated rice fields.	May – August	Absent. No suitable habitat on-site
White-tailed kite (<i>Elanus leucurus</i>)	--/--/CFP	Nesting occurs within trees in low elevation grassland, agricultural, wetland, oak woodland, riparian, savannah, and urban habitats.	March – August	Potential to occur
Golden eagle (<i>Aquila chrysaetos</i>)	--/--/BCC, CFP	Nesting habitat includes mountainous canyon land, rimrock terrain of open desert and grasslands, riparian, oak woodland/savannah, and chaparral. Nesting occurs on cliff ledges, riverbanks, trees, and manufactured structures (e.g., windmills, platforms, and transmission towers). Breeding occurs throughout California, except the immediate coast, Central Valley floor, Salton Sea region, and the Colorado River region, where they can be found during the Winter.	Nest (February – August); winter Central Valley (October – February)	Low potential to occur. Marginal foraging habitat present on-site
Northern harrier (<i>Circus hudsonius</i>)	--/--/BCC, SSC	Nests on the ground in open wetlands, marshy meadows, wet/lightly grazed pastures, (rarely) freshwater/brackish marshes, tundra, grasslands, prairies, croplands, desert, shrub-steppe, and (rarely) riparian woodland communities.	April – September	Potential to occur. Foraging habitat present on-site
Cooper's hawk (<i>Accipiter cooperii</i>)	--/--/ CDFW WL	Nests in trees in riparian woodlands in deciduous, mixed and evergreen forests, as well as urban landscapes.	March – July	Low potential to occur. Marginal nesting habitat present on-site

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TABLE 4.4-1 POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Species Name	Status (Federal/State/Other) ^a	Habitat Description	Survey Period	Potential to Occur On-Site
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Delisted/CE/CFP, BCC	Typically nests in forested areas near large bodies of water in the northern half of California; nests in trees and rarely on cliffs; wintering habitat includes forest and woodland communities near water bodies (e.g., rivers, lakes), wetlands, flooded agricultural fields, open grasslands.	February – September (nesting); October – March (wintering)	Low potential to occur. Marginal foraging habitat present on-site
Swainson's hawk (<i>Buteo swainsoni</i>)	--/CT/BCC	Nesting occurs in trees in agricultural, riparian, oak woodland, scrub, and urban landscapes. Forages over grassland, agricultural lands, particularly during disking/harvesting, and irrigated pastures.	March – August	Potential to occur
Ferruginous hawk (<i>Buteo regalis</i>)	--/--/BCC, CDFW WL	Rarely breeds in California (Lassen County); winter range includes grassland and shrubsteppe habitats from Northern California (except northeast and northwest corners) south to Mexico and east to Oklahoma, Nebraska, and Texas.	September – March (wintering)	Potential to occur. Suitable foraging habitat present on-site
Burrowing owl (<i>Athene cunicularia</i>)	--/--/BCC, SSC	Nests in burrows or burrow surrogates in open, treeless areas within grassland, steppe, and desert biomes. Often with other burrowing mammals (e.g., prairie dogs, California ground squirrels). May also use manufactured habitat such as agricultural fields, golf courses, cemeteries, roadside, airports, vacant urban lots, and fairgrounds.	February – August	Potential to occur
Nuttall's woodpecker (<i>Dryobates nuttallii</i>)	--/--/BCC	Resident from northern California south to Baja California. Nests in tree cavities in oak woodlands and riparian woodlands.	April – July	Potential to occur
Merlin (<i>Falco columbarius</i>)	--/--/CDFW WL	Breeds in Oregon, Washington and north into Canada. Winters in southern Canada to South America, including California. Breeds near forest openings, fragmented woodlots, and riparian areas. Wintering habitat includes wide variety, open forests, grasslands, tidal flats, plains, and urban settings.	September – April (wintering in the Central Valley); does not breed in California	Low potential to occur. Marginal wintering habitat present on-site
Prairie falcon (<i>Falco mexicanus</i>)	--/--/CDFW WL	Found in open habitat at all elevations up to 3,350 meters. Nests on cliffs and bluffs in arid plains and steppes. In California, nests throughout state except northwest corner, along immediate coast, and the Central Valley floor. Winters throughout California, in open habitats, such as grasslands in Central Valley.	March – July (breeding); September – February (wintering in Central Valley)	Potential to occur. Suitable foraging habitat on-site

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TABLE 4.4-1 POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Species Name	Status (Federal/State/Other) ^a	Habitat Description	Survey Period	Potential to Occur On-Site
Loggerhead shrike (<i>Lanius ludovicianus</i>)	--/--/BCC, SSC	Found throughout California in open country with short vegetation, pastures, old orchards, grasslands, agricultural areas, open woodlands. Not found in heavily forested habitats.	March – July	Potential to occur
Yellow-billed magpie (<i>Pica nuttallii</i>)	--/--/BCC	Endemic to California; found in the Central Valley and coast range south of San Francisco Bay and north of Los Angeles County; nesting habitat includes oak savannah with large expanses of open ground; also found in urban parklike settings.	April – June	Potential to occur
California horned lark (<i>Eremophila alpestris actia</i>)	--/--/CDFW WL	San Joaquin Valley, coast range from Sonoma County south to Baja California; grassland and agricultural areas.	March – July	Potential to occur
Song sparrow “Modesto” (<i>Melospiza melodia heermanni</i>)	--/--/SSC	Resident in central and southwest California, including Central Valley; nests in marsh and scrub habitats.	April – June	Potential to occur. Suitable nesting habitat present on-site
Yellow-headed blackbird (<i>Xanthocephalus xanthocephalus</i>)	--/--/SSC	In California, breeds in the Great Basin region, along Colorado River south to Baja California, Salton Sea, Kern, Ventura, Riverside, San Diego and possibly Orange and Lake counties, and locally in the Central Valley. Nests are constructed over deep water in emergent vegetation of prairie wetlands, quaking aspen parklands, mountain meadows, forest edges, large lakes.	April – July	Low potential to occur. Marginal wintering habitat present on-site.
Bullock’s oriole (<i>Icterus bullockii</i>)	--/--/BCC	Breeding habitat includes riparian and oak woodlands.	March – July	Potential to occur
Tricolored blackbird (<i>Agelaius tricolor</i>)	--/CT/BCC, SSC	Breeds locally west of Cascade-Sierra Nevada and southeastern deserts from Humboldt and Shasta counties south to San Bernardino, Riverside and San Diego Counties. Central California, Sierra Nevada foothills and Central Valley, Siskiyou, Modoc and Lassen Counties. Nests colonially in freshwater marsh, blackberry bramble, milk thistle, triticale fields, weedy (i.e., mustard, mallow) fields, giant cane, safflower, stinging nettles, tamarisk, riparian scrublands and forests, fiddleneck and fava bean fields.	March – August	Potential to occur

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TABLE 4.4-1 POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Species Name	Status (Federal/State/Other) ^a	Habitat Description	Survey Period	Potential to Occur On-Site
Saltmarsh common yellowthroat (<i>Geothlypis trichas sinuosa</i>)	--/--/BCC, SSC	Breeds in salt marshes of San Francisco Bay; winters San Francisco south along coast to San Diego County	March – July	Absent. No suitable habitat on-site.
Mammals				
Nelson's antelope squirrel (<i>Ammospermophilus nelsoni</i>)	--/CT/--	Dry, sparsely vegetated areas with loam soils in chenopod scrub habitats in the western San Joaquin Valley from 200-1200 feet in elevation. Needs widely scattered shrubs, forbs, and grasses in broken terrain with gullies and washes.	Any season	Low potential to occur. On the edge of the known range for the species
Giant kangaroo rat (<i>Dipodomys ingens</i>)	FE/CE/--	Annual grasslands on the western side of the San Joaquin Valley. Marginal habitat in alkali scrub. Needs level terrain and sandy loam soils for burrowing.	Any season	Absent. Outside known range for the species
Fresno kangaroo rat (<i>Dipodomys nitratoides exilis</i>)	FE/CE/--	Elevated grassy patches on alkali plains or in grassy terrain with scattered alkali patches. Friable soils for burrow digging and annual and native forbs and grasses for foraging are necessary habitat components. Distribution is limited to the flat San Joaquin Valley Floor from Merced County to the northern border of Kings County.	Any season	Absent. Outside known range for the species
Western mastiff bat (<i>Eumops perotis californicus</i>)	--/--/SSC	Primarily a cliff-dwelling species, found in similar crevices in large boulders and buildings.	April – September	Low potential to occur. Marginal roosting habitat present
Hoary bat (<i>Lasiurus cinerus</i>)	--/--/SSC	Dense foliage of medium to large trees; roost primarily in foliage of both coniferous and deciduous trees. Roosts are usually at the edge of a clearing. Some unusual roosting situations have been reported in caves, beneath a rock ledge, in a woodpecker hole, in a grey squirrel nest, under a driftwood plank, and clinging to the side of a building.	April – September	Potential to occur
American badger (<i>Taxidea taxus</i>)	--/--/SSC	Drier open stages of most shrub, forest, and herbaceous habitats with friable soils.	Any season	Low potential to occur. Marginal habitat present on-site.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FE/CT/--	Native and non-native grasslands, oak savannah adjacent to grasslands, agricultural lands, lands that are dryland farmed, alkali scrub, and ruderal land.	May – November	Potential to occur

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TABLE 4.4-1 POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Species Name	Status (Federal/State/Other) ^a	Habitat Description	Survey Period	Potential to Occur On-Site
Status Codes:				
FESA: Federal Endangered Species Act; CESA: California Endangered Species Act; Delisted: Formally Delisted (delisted species are monitored for five years)				
FE: FESA listed, Endangered; FP: FESA listed, Protected; FT: FESA listed, Threatened; FC: Candidate for FESA listing as Threatened or Endangered				
CT: CESA- or NPPA listed, Threatened; CE: CESA or NPPA listed, Endangered				
BCC: USFWS Bird of Conservation Concern (USFWS 2021)				
CFP: California Fish and Game Code Fully Protected Species (Section 3511-birds, Section 4700-mammals, Section 5050-reptiles/amphibians)				
CDFW WL: CDFW Watch List; SSC: CDFW Species of Special Concern				
1B: CRPR/Rare or Endangered in California and elsewhere				
2B: CRPR/Plants rare, threatened, or endangered in California but more common elsewhere				
3: CRPR/Plants About Which More Information is Needed – A Review List				
4: CRPR/Plants of Limited Distribution – A Watch List				
0.1: Threat Rank/Seriously threatened in California (over 80 percent of occurrences threatened / high degree and immediacy of threat)				
0.2: Threat Rank/Moderately threatened in California (20-80 percent occurrences threatened / moderate degree and immediacy of threat)				
0.3: Threat Rank/Not very threatened in California (<20 percent of occurrences threatened / low degree and immediacy of threat or no current threats known)				
Source: ECORP Consulting, Inc., April 2022. <i>Biological Resources Assessment for the Los Banos General Plan Update</i> .				

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Critical Habitat

There is no designated critical habitat or EFH in the EIR Study Area.

Sensitive Natural Communities

Within the EIR Study Area, five sensitive natural communities were identified as having potential to occur. These included Valley Sink Scrub, Cismontane Alkali Marsh, Coastal and Valley Freshwater Marsh, Great Valley Cottonwood Riparian Forest, and Sycamore Alluvial Woodland. Past disturbance, urbanization, agricultural development, and introduction of non-native species limit the presence of sensitive natural communities; however, portions of the EIR Study Area support riparian woodland and freshwater habitats.

Wildlife Movement Corridors

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow safe movement for mammals and other wildlife species from one habitat area to another. The definition of a corridor is varied, but corridors may include areas such as greenbelts, refuges, underpasses, riparian areas, creeks, and biogeographic land bridges. In general, a corridor can be described as a linear habitat embedded within a dissimilar matrix that connects two or more larger blocks of habitat.

Habitat for wildlife species within the EIR Study Area is mainly fragmented by Highways 33/152 and 165, irrigation canals, and urban development. The agricultural fields and non-native annual grassland habitats provide potential opportunities for wildlife movement through the EIR Study Area. However, wildlife movement through these areas is limited to periods when vehicle traffic is at a minimum or when agricultural machinery is not in operation. The mixed riparian woodland within Los Banos Creek transecting the western portion of the EIR Study Area may serve as a wildlife corridor but is constrained by the narrow width of the corridor and lack of continuous vegetation cover.

4.4.2 STANDARDS OF SIGNIFICANCE

The EIR Study Area is outside of the area covered by the Merced County Natural Community Conservation Plan. Consequently, the proposed project would not conflict with the provisions of an adopted HCP or other approved conservation plan and the following standard is not discussed further in this EIR.

- Conflict with the provisions of an adopted Habitat Conservation Plan; Natural Community Conservation Plan; or other approved local, regional, or State habitat conservation plan.

Implementation of the proposed project would result in significant impacts to biological resources if it would:

1. 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.

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2. 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.
3. 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.
4. 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.
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
6. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to biological resources.

4.4.3 IMPACT DISCUSSION

BIO-1	Implementation of the proposed project would not 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.
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The potential for occurrence of special-status species in developed areas is generally very remote in comparison to undeveloped lands with natural habitat that contain essential habitat characteristics for the range of species known to occur within the EIR Study Area. As discussed under Section 4.4.1.2, *Existing Conditions*, and listed in Table 4.4-1, *Potentially Occurring Special-Status Species*, occurrences of 89 special-status species have been documented within the EIR Study Area. Under the proposed project, there is potential for future development to occur on undeveloped land, which could significantly impact, either directly, or through habitat modifications, special-status plant and animal species.

Several existing regulations would help ensure that development and redevelopment activities associated with the proposed project would not result in significant impacts to special-status plant and animal species. Compliance with the federal, state, regional, and local regulations described in Section 4.4.1.1, *Regulatory Framework*, would protect special-status species present or potentially present within the EIR Study Area by minimizing potential impacts associated with implementation of the proposed project. For example, the federal and California ESAs, MBTA, California Fish and Game Code, and California NPPA all serve to prevent the potential “take” of federally, state, or locally protected species. Los Banos’ local regulations, such as LBMC Title 9, *Planning and Zoning*, Chapter 6, *City of Los Banos Water Efficient Landscape Ordinance*, and Title 10, *Parks and Recreation*, Chapter 1, *Trees, Shrubs, and Plants*, serve to protect habitat and open space in the EIR Study Area by outlining requirements for the efficient use of water and use of plant materials to protect and provide habitat for beneficial insects and other wildlife

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and by establishing measures to govern the removal of significant trees, thereby further minimizing potential impacts to special-status species.

The proposed Parks, Open Space, and Conservation (P) Element contains goals, policies, and actions that require local planning and development decisions to consider impacts to biological resources, including special-status species, on a project-by-project basis. These goals, policies, and actions relate to preserving mature trees and other native vegetation, controlling and eradicating non-native invasive species, participating in regional habitat restoration efforts, and conforming with State and federal regulations related to special-status species, wetlands, and other jurisdictional waters. Implementation of the following goals, policies, and actions would work to reduce general impacts to sensitive habitats and species in the EIR Study Area.

- **Goal P-6.** Protect and restore biological resources of Los Banos.
 - **Policy P-P6.1.** Protect species that are federally or state listed as rare, threatened, endangered, or sensitive.
 - **Policy P-P6.2.** Require assessments of biological resources prior to approval of any development within 300 feet of any creeks, wetlands, sensitive habitat areas, or areas of potential special-status species. Protect sensitive habitat areas and special-status species in the following order: (1) avoidance, (2) on-site mitigation, and (3) off-site mitigation.
 - **Policy P-P6.3.** Review development proposals in accordance with applicable federal and state laws protecting special-status species and jurisdictional wetlands and use the California Natural Diversity Database and field reconnaissance, where necessary, to confirm habitat value, to assist in identifying potential conflicts with sensitive habitats or special-status species and establishing appropriate mitigation and monitoring requirements.
 - **Policy P-P6.5.** Require project applicants to avoid nests of native birds in active use, in compliance with state and federal regulations. For new development sites where nesting birds may be present, initiate vegetation clearing and construction outside the bird nesting season (March 1 through August 31) or conduct preconstruction surveys by a qualified biologist in advance of any disturbance. If active nests are encountered, establish appropriate buffer zones based on recommendations by the qualified biologist and maintain the buffer zones until any young birds have successfully left the nest.
 - **Action P-A6.1.** Develop buffer zones around Los Banos Creek Corridor and the grassland wetland areas to the east to enhance groundwater recharge and minimize impacts to habitat species.

Applicable federal, state, regional, and local regulations, together with proposed General Plan goals, policies, and actions listed here would help protect special-status species and minimize impacts on any species identified as an endangered, threatened, candidate, sensitive, or special status and their habitat. Potential future development in the EIR Study Area that would involve development in areas where special-status species may occur would be subject to site-specific assessments as required by General Plan Policy P-P6.2. A site-specific biological resource assessment would determine whether any sensitive natural communities are present and would ensure sensitive resources are adequately protected or appropriate compensatory mitigation is provided as part of new development. Additionally, Policy P-P6.5 would address the possible presence of bird nests in active use, which are protected under the federal

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MBTA and California Fish and Game Code. Accordingly, impacts to special-status species would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

BIO-2	Implementation of the proposed project would not 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.
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The potential for substantial adverse effects on habitat and sensitive natural communities in developed areas is generally very remote in comparison to undeveloped lands with natural habitat that contain sensitive natural communities. As discussed under Section 4.4.1.2, *Existing Conditions*, five sensitive natural communities were identified as having potential to occur: Valley Sink Scrub, Cismontane Alkali Marsh, Coastal and Valley Freshwater Marsh, Great Valley Cottonwood Riparian Forest, and Sycamore Alluvial Woodland. Past disturbance, urbanization, agricultural development, and introduction of non-native species limit the presence of sensitive natural communities; however, portions of the EIR Study Area support riparian woodland and freshwater habitats. Under the proposed project, there is the potential for future development to occur on undeveloped land, which could significantly impact, either directly, or through habitat modifications, sensitive natural communities.

Several existing regulations would help to ensure that development and redevelopment activities associated with the proposed project would not result in significant impacts to habitat or sensitive natural communities. Compliance with the federal, state, regional, and local regulations described in Section 4.4.1.1, *Regulatory Framework*, of this chapter would protect habitat and sensitive natural communities present within the EIR Study Area by minimizing potential impacts associated with implementation of the proposed project. For example, the federal and California ESAs, MBTA, California Fish and Game Code, and California NPPA all serve to prevent the potential destruction of habitat and sensitive natural communities that would result in the “taking” of special-status plant and animal species. Los Banos’ local regulations, such as LBMC Title 9, *Planning and Zoning*, Chapter 6, *City of Los Banos Water Efficient Landscape Ordinance*, and Title 10, *Parks and Recreation*, Chapter 1, *Trees, Shrubs, and Plants*, serve to protect habitat and open space in the EIR Study Area by outlining requirements for the efficient use of water and use of plant materials to protect and provide habitat for beneficial insects and other wildlife and by establishing measures to govern the removal of significant trees, thereby further minimizing potential impacts to special-status species.

As discussed in impact discussion BIO-1, the proposed Parks, Open Space, and Conservation (P) Element of the Los Banos General Plan 2042 contains goals, policies, and actions that require local planning and development decisions to consider impacts to biological resources, including riparian habitats and other sensitive natural community types, on a project-by-project basis. These General Plan goals, policies, and actions serve to minimize impacts on riparian and other sensitive natural communities in the EIR Study Area:

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- **Goal P-6.** Protect and restore biological resources of Los Banos.
 - **Policy P-P6.2.** Require assessments of biological resources prior to approval of any development within 300 feet of any creeks, wetlands, sensitive habitat areas, or areas of potential special-status species. Protect sensitive habitat areas and special-status species in the following order: (1) avoidance, (2) on-site mitigation, and (3) off-site mitigation.
 - **Policy P-P6.3.** Review development proposals in accordance with applicable federal and state laws protecting special-status species and jurisdictional wetlands and use the California Natural Diversity Database and field reconnaissance, where necessary, to confirm habitat value, to assist in identifying potential conflicts with sensitive habitats or special-status species and establishing appropriate mitigation and monitoring requirements.
 - **Action P-A6.1.** Develop buffer zones around Los Banos Creek Corridor and the grassland wetland areas to the east to enhance groundwater recharge and minimize impacts to habitat species.

Applicable federal, state, regional, and local regulations, together with proposed General Plan 2042 goals, policies, and actions listed here would reduce potential impacts to special-status species. Future development proposals requiring discretionary review in locations that may contain sensitive habitat would typically undergo a project-level environmental review to determine presence or absence. As discussed under impact discussion BIO-1, site-specific assessments would be required for areas that may support special-status species, including riparian habitat, under General Plan Policy P-P6.2. Subsequent projects from implementation of the proposed project that would involve development in areas where riparian habitat or a sensitive natural community may occur would be subject to General Plan Policy P-P6.2, which would identify and mitigate impacts to habitat and other sensitive natural communities. Therefore, impacts from the proposed project would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

BIO-3	Implementation of the proposed project would not 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.
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There is low potential for substantial adverse effects on wetlands in developed areas within the city limit and Urban Growth Boundary (UGB). There are areas within the EIR Study Area where wetlands are present. As noted previously, immediately to the east of Los Banos are wetland areas within the GRCD, which are part of the largest contiguous block of wetlands remaining in California's Central Valley.

As shown on Figure 3-6, *General Plan 2042 Land Use Map*, under the proposed General Plan, the majority of the land along the eastern edge of Los Banos is designated Agriculture/Rural. This designation is applied to the area within the city limits but outside of the UGB that contains the City's wastewater treatment ponds and City-owned land to the east of the ponds. The Agriculture/Rural designation is intended for rural and agricultural land uses without municipal services. Typical development allows for large parcels with housing and agricultural service buildings and uses, with a maximum density of 0.1 units per acre (or 1 unit per 10 acres). This low density, combined with restrictions on urban development

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outside the UGB, would reduce the likelihood of substantial adverse effects on protected wetlands within the EIR Study Area.

The State Route (SR-) 152 Bypass Corridor designation is applied to land within both city limits and the UGB, immediately north of SR-152 and east of the San Luis Canal to preserve land for a future interchange of SR-152 and the SR-152 bypass. No development is permitted or anticipated in areas designated SR-152 Bypass Corridor; thus, allowed densities and intensities are both zero. Existing agricultural uses are permitted to continue, but no new structures are allowed within the bypass designation.

Immediately east of the San Luis Canal, the proposed General Plan applies the Industrial land use designation. The Industrial designation allows primarily manufacturing, research and development, wholesale and warehouse distribution, agricultural and food processing, agricultural sales and services, truck terminals, utility operations, and similar activities, including those with outdoor facilities, at floor-area ratios (FARs) from 0.25 to 0.70. Parcels with this designation are currently either in light industrial use or in agricultural use. South of SR-152, the city limits and UGB slant southwest, away from the wetland areas. Within the city limit, existing industrial and agricultural land east of Ward Road is designated Industrial. South of the former rail right-of-way, existing agricultural land is designated Parks, which allows public and private recreation sites and facilities.

Land designated Agriculture/Rural is outside of the UGB, and land designated SR-152 Bypass Corridor is intended to prohibit development. Therefore, the potential impacts to any protected wetlands within these designations is *less than significant*. Lands designated with the Industrial and Parks designations are currently occupied by industrial businesses and/or active agricultural operations. Therefore, it is unlikely that these lands contain significant protected wetlands. However, since site-specific wetland delineations have not been performed on each site, there is the potential for future development associated with the implementation of the proposed project to occur on undeveloped land, which could significantly impact, either directly, or indirectly, wetlands.

Several existing regulations would help to ensure that development and redevelopment activities associated with the proposed project would not result in significant impacts to wetlands. Compliance with the federal, state, regional, and local regulations described in Section 4.4.1.1, *Regulatory Framework*, would protect wetlands by minimizing potential impacts associated with implementation of the proposed project. For example, compliance with the CWA would require any future projects that would involve the filling of a wetland to obtain a permit.

As discussed in impact discussion BIO-1, the proposed Parks, Open Space, and Conservation (P) Element of the Los Banos General Plan 2042 contains goals, policies, and actions that require local planning and development decisions to consider impacts to biological resources, including state and federally protected wetlands, on a project-by-project basis. These General Plan goals, policies, and actions serve to minimize impacts on wetlands in the EIR Study Area:

- **Goal P-5.** Protect and restore open space resources of Los Banos.
 - **Policy P-P5.1.** Protect and enhance the natural habitat features and open space corridors within and around the Planning Area.

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- **Policy P-P5.2.** Require degraded open space areas be restored to an environmentally sustainable condition as part of development approval where these lands are proposed as permanent open space in new development.
- **Action P-A5.1.** Establish priorities for open space preservation and acquisition based on an evaluation of:
 - Significant natural areas that are historically, ecologically, or scientifically unique or are outstanding, important, or threatened;
 - Wildlife habitats and fragile ecosystems in need of protection;
 - Watersheds or significant water recharge areas;
 - Open space for safety and public health;
 - Lands suitable for recreation, such as biking, photography or nature study;
 - Preserving or restoring natural features and ecosystem processes that can increase resiliency to climate change; and
 - Land suitable for agricultural production.
- **Action P-A5.2.** Establish and maintain a protection zone around wetlands, riparian corridors, and identified habitat areas where development shall not occur, except as part of a parkway enhancement program (e.g., trails and bikeways).
- **Action P-A5.3.** Work with the Grassland Water District to create a greenbelt/open space buffer around the perimeter of the city that provides a clear sense of identity and protects the Grassland Ecological Area.
- **Action P-A5.4.** Work with the Grassland Water District to establish a “no net loss” policy for wetlands and vernal pools within and adjacent to the Planning Area.
- **Goal P-6.** Protect and restore biological resources of Los Banos.
 - **Policy P-P6.2.** Require assessments of biological resources prior to approval of any development within 300 feet of any creeks, wetlands, sensitive habitat areas, or areas of potential special-status species. Protect sensitive habitat areas and special-status species in the following order: (1) avoidance, (2) on-site mitigation, and (3) off-site mitigation.
 - **Policy P-P6.3.** Review development proposals in accordance with applicable federal and state laws protecting special-status species and jurisdictional wetlands and use the California Natural Diversity Database and field reconnaissance, where necessary, to confirm habitat value, to assist in identifying potential conflicts with sensitive habitats or special-status species and establishing appropriate mitigation and monitoring requirements.
 - **Action P-A6.1.** Develop buffer zones around Los Banos Creek Corridor and the grassland wetland areas to the east to enhance groundwater recharge and minimize impacts to habitat species.

As described in impact discussions BIO-1 and BIO-2, site-specific assessments would be required for developments proposed on or near sensitive habitats, such as wetlands. The assessment would be necessary to determine the extent of any jurisdictional waters on undeveloped lands with potentially sensitive habitat where development is proposed. These local regulations, along with applicable federal, state, and regional regulations would reduce potential impacts to state or federally protected wetlands.

BIOLOGICAL RESOURCES

Therefore, impacts from the proposed project would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

BIO-4	Implementation of the proposed project would not 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.
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Given the urbanized context within the city limit, opportunities for wildlife movement are limited. Existing development, including buildings, major roadways, canals, or other similar improvements, represent substantial barriers to wildlife movement. The agricultural fields and non-native annual grassland habitats provide potential opportunities for wildlife movement, but movement is limited to periods when vehicle traffic is at a minimum and agricultural machinery is not in operation. The mixed riparian woodland within Los Banos Creek transecting the western portion of the EIR Study Area may serve as a wildlife corridor but is constrained by the narrow width of the corridor and lack of continuous vegetation cover. Potential future development that could occur during the buildout horizon of the proposed project could significantly impact, either directly, or indirectly, movement of native or migratory fish or wildlife species.

Several existing regulations would help to ensure that development and redevelopment activities associated with the proposed project would not result in significant impacts to wildlife corridors. Compliance with the federal, state, regional, and local regulations described in Section 4.4.1.1, *Regulatory Framework*, would protect habitat, including protection of corridors essential to the movement of native fish and animal species present within the EIR Study Area by minimizing potential impacts associated with implementation of the proposed project.

As discussed in impact discussion BIO-1, the proposed Parks, Open Space, and Conservation (P) Element of the Los Banos General Plan 2042 contains goals, policies, and actions that require local planning and development decisions to consider impacts to biological resources, including wildlife movement, corridors, and nursery sites, on a project-by-project basis. In addition, the proposed Land Use (LU) Element contains goals and policies that require orderly development in compact form that support minimizing impacts to wildlife movement and bird-safe design requirements. These General Plan goals, policies, and actions serve to minimize impacts on wildlife movement and corridors in the EIR Study Area.

- **Goal P-5.** Protect and restore open space resources of Los Banos.
 - **Policy P-P5.1.** Protect and enhance the natural habitat features and open space corridors within and around the Planning Area.
 - **Policy P-P5.2.** Require degraded open space areas be restored to an environmentally sustainable condition as part of development approval where these lands are proposed as permanent open space in new development.
 - **Policy P-P5.3.** Require the preservation of mature trees and encourage the planting of drought-resistant street and shade trees in all new developments.

BIOLOGICAL RESOURCES

- **Action P-A5.1.** Establish priorities for open space preservation and acquisition based on an evaluation of: Significant natural areas that are historically, ecologically, or scientifically unique or are outstanding, important, or threatened; Wildlife habitats and fragile ecosystems in need of protection; Watersheds or significant water recharge areas; Open space for safety and public health; Lands suitable for recreation, such as biking, photography or nature study; Preserving or restoring natural features and ecosystem processes that can increase resiliency to climate change; and Land suitable for agricultural production.
- **Goal P-6.** Protect and restore biological resources of Los Banos.
 - **Policy P-P6.2.** Require assessments of biological resources prior to approval of any development within 300 feet of any creeks, wetlands, sensitive habitat areas, or areas of potential special-status species. Protect sensitive habitat areas and special-status species in the following order: (1) avoidance, (2) on-site mitigation, and (3) off-site mitigation.
 - **Policy P-P6.3.** Review development proposals in accordance with applicable federal and state laws protecting special-status species and jurisdictional wetlands and use the California Natural Diversity Database and field reconnaissance, where necessary, to confirm habitat value, to assist in identifying potential conflicts with sensitive habitats or special-status species and establishing appropriate mitigation and monitoring requirements.
 - **Action P-A6.1.** Develop buffer zones around Los Banos Creek Corridor and the grassland wetland areas to the east to enhance groundwater recharge and minimize impacts to habitat species.
- **Goal LU-1.** Provide for orderly, well-planned, and balanced development.
 - **Policy LU-P1.2.** Maintain a well-defined compact urban form, with a defined urban growth boundary and development intensities on land designated for urban uses.
 - **Policy LU-P1.3.** Require that any land requested to be annexed be contiguous with the existing city limits, within the urban growth boundary, and within the sphere of influence.
- **Goal LU-4.** Protect and enhance Los Banos' image and unique sense of place.
 - **Policy LU-P4.12.** Require development proposals to incorporate bird-safe design measures including the following design considerations and best management practice strategies:
 - Avoid the use of highly reflective glass as an exterior treatment, which appears to reproduce natural habitat and can be attractive to some birds,
 - Limit reflectivity and prevent exterior glass from attracting birds in building plans by utilizing low-reflectivity glass and providing other non-attractive surface treatments,
 - For commercial buildings, interior light "pollution" should be reduced during evening hours through the use of a lighting control system,
 - Exterior lighting should be directed downward and screened to minimize illuminating the exterior of the building at night, except as needed for safety and security,
 - Freestanding glass walls, and transparent building corners should not be allowed,
 - Transparent glass should not be allowed at the rooflines of buildings, and
 - All roof mechanical equipment should be covered by low-profile angled roofing so that obstacles to bird flight are minimized

BIOLOGICAL RESOURCES

Creeks and riparian corridors serve as important movement corridors through the EIR Study Area, and the numerous goals, policies, and actions in the General Plan would serve to protect and enhance these features. Site-specific biological resource assessments pursuant to General Plan Policy P-P6.2 would determine whether any important wildlife movement corridors are present on undeveloped lands where potential future development is proposed. This project-specific assessment would serve to identify presence of any sensitive wildlife movement corridors and would ensure sensitive resources are adequately protected or appropriate compensatory mitigation is provided as part of new development. Applicable existing laws and regulations, together with proposed General Plan goals, policies, and actions listed here would reduce potential impacts to the movement of any native resident or migratory fish or wildlife species, established native resident or migratory wildlife corridors, or native wildlife nursery sites that could result from buildout of the proposed project.

Potential future development could result in the potential for bird collisions as a result of new buildings and other structures. Avian injury and mortality resulting from collisions with buildings, towers, and other human-made structures is a common occurrence in city and urban fringe settings. Some birds are unable to detect and avoid glass and have difficulty distinguishing between actual objects and their reflected images, particularly when the glass is transparent and views through the structure are possible. Night-time lighting can interfere with movement patterns of some night-migrating birds, causing disorientation or attracting them to the light source. The frequency of bird collisions in any particular area is dependent on numerous factors, including characteristics of building height, fenestration, and exterior treatments of windows and their relationship to other buildings and vegetation in the area; local and migratory avian populations, their movement patterns, and proximity of water, food, and other attractants; time of year; prevailing winds; weather conditions; and other variables.

New buildings associated with the future development under the proposed project would alter existing physical characteristics of the EIR Study Area and could contribute to an increased risk of bird collisions and mortalities. For taller buildings and structures that extend above the existing urban fabric and height of vegetative cover, this could be a significant impact unless appropriate bird-safe design measures were incorporated into the building design. General Plan Policy LU-P4.12 would ensure bird-safe design is considered for new buildings/structures and to reduce the risk of bird collisions and would ensure that opportunities for wildlife movement in this respect are adequately identified and protected.

In summary, with implementation of the proposed project, potential impacts related to wildlife migration would be less than significant and no mitigation measures are required.

Significance without Mitigation: Less than significant.

BIO-5	Implementation of the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
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The proposed project itself does not propose any removal of trees; however, there is the potential for future development associated with the implementation of the proposed project to result in the removal of trees, which could conflict with local policies and ordinances for protection of biological resources.

BIOLOGICAL RESOURCES

Several existing regulations would help to ensure that development and redevelopment activities associated with the proposed project would not conflict with local policies or ordinances to protect biological resources. Compliance with the federal, state, regional, and local regulations described in Section 4.4.1.1, *Regulatory Framework*, would protect biological resources, including resources such as trees that can provide habitat. LBMC Title 10, *Parks and Recreation*, Chapter 1, *Trees, Shrubs, and Plants*, provides tree regulations that will maintain the ecological balance of the area and protect significant trees in Los Banos. The adoption and implementation of the proposed project would not affect ongoing enforcement of these local ordinances.

Compliance with existing regulations, including LBMC Title 10, *Parks and Recreation*, Chapter 1, *Trees, Shrubs, and Plants*, which serves to minimize potential impacts related to the protection of significant trees, impacts would be considered *less than significant*, and no mitigation measures are required.

Significance without Mitigation: Less than significant.

BIO-6	Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in a cumulative impact with respect to biological resources.
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As discussed in Chapter 4, *Environmental Analysis*, the geographical scope of the cumulative analysis for biological resources considers the surrounding incorporated and unincorporated lands of Los Banos and the region. The potential impacts of proposed development on biological resources tend to be site-specific, and the overall cumulative effect would depend on the degree to which significant vegetation and wildlife resources are protected on a particular site. This includes preservation of well-developed native vegetation, including native grasslands, oak woodlands, riparian woodland, etc., populations of special-status plant or animal species, and wetland features.

To some degree, cumulative development contributes to an incremental reduction in the amount of existing wildlife habitat, particularly for birds and larger mammals. Habitat for species intolerant of human disturbance can be lost as development encroaches into previously undeveloped areas, disrupting or eliminating movement corridors and fragmenting the remaining suitable habitat retained within parks, private open space, or undeveloped properties. Wetlands in the Grassland Ecological Area are endangered by urban expansion, toxic drainage, fragmentation, and loss of water supply.⁵ New development in the region would result in further conversion of existing natural habitats to urban and suburban conditions, limiting the existing habitat values of the surrounding area. This could include further loss of wetlands and sensitive natural communities, reducing essential habitat for special-status species, removing mature native trees and other important wildlife habitat features, and obstructing important wildlife movement corridors. Additional development may also contribute to degradation of the aquatic habitat in creeks throughout the region, including the EIR Study Area.

⁵ Merced County, *2030 Merced County General Plan Final PEIR*, October 2013, page 4-26.

BIOLOGICAL RESOURCES

Grading associated with construction activities generally increases erosion and sedimentation, and urban pollutants from new development would reduce water quality. Under the proposed project, there is the potential for future development to occur on undeveloped land, which could result in cumulative impacts to biological resources.

However, as described previously under impact discussion BIO-1 through BIO-5, and because impacts to biological resources tend to be site-specific, compliance with the federal, state, regional, and local regulations described in Section 4.4.1.1, *Regulatory Framework*, of this chapter would protect biological resources. In addition, implementation of the General Plan 2042 goals, policies, and actions listed throughout the previous impact discussions would reduce potential impacts to biological resources to less-than-significant levels. Subsequent projects under the proposed project would most likely be subject to separate project-level environmental review pursuant to CEQA to identify and mitigate impacts to biological resources. Therefore, past, present, and reasonably foreseeable projects would not result in a cumulatively considerable contribution to impacts on biological resources and cumulative impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

CULTURAL AND TRIBAL CULTURAL RESOURCES

4.5 CULTURAL AND TRIBAL CULTURAL RESOURCES

This chapter describes the potential impacts to cultural and tribal cultural resources associated with the adoption and implementation of the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential cultural and tribal cultural resources impacts, and identifies General Plan policies that could minimize any potentially significant impacts.

This chapter is based on the *Cultural Resources Records Search and Data Gathering Summary for the Los Banos General Plan Environmental Impact Report (EIR) Project, Merced County*, prepared by ECORP Consulting, Inc., dated March 11, 2022. This report is included in Appendix D, *Cultural Resources Data*, of this Draft Environmental Impact Report (EIR).

4.5.1 ENVIRONMENTAL SETTING

4.5.1.1 TERMINOLOGY

The following terms are recurring and referenced throughout this chapter.

- **Cultural Resource.** This term is used to describe several different types of properties: pre-contact (prehistoric) and historic archaeological sites, buildings, objects, structures, and districts or any other physical evidence associated with human activity considered important to a culture or a community for scientific, traditional, or religious reasons.
- **Historic Property.** Federal regulations (36 Code of Federal Regulation [CFR] 800) define a historic property as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP). This term includes artifacts, records, and remains that are related to and located within such properties. The term also includes properties of traditional religious and cultural importance to Native American tribes or Native Hawaiian organizations and that meet NRHP criteria.
- **Historical Resource.** The California Environmental Quality Act (CEQA) Guidelines Section 15064.5(a) define a historical resource as a resource listed in the California Register of Historical Resources (CRHR) or determined to be eligible for listing in the CRHR by the State Historical Resources Commission, a resource included in a local register of Historical Resources, or identified as significant in a Historical Resource survey meeting the requirements of Public Resources Code (PRC) Section 5024.1(g), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.
- **Unique Archaeological Resource.** CEQA defines this term as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
 - Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.

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- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.
- **Tribal Cultural Resource.** CEQA defines tribal cultural resources as sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are included or determined to be eligible for inclusion in the CRHR; and/or included in a local register of historical resources; and/or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant.

4.5.1.2 REGULATORY FRAMEWORK

Federal Regulations

National Historic Preservation Act

The National Historic Preservation Act defines the responsibilities of federal agencies to protect and preserve Historic Properties. Sections 106 and 110 include specific provisions for the identification and evaluation of these properties for inclusion in the NRHP, such as consulting with interested parties that often include local Native American tribes.

Section 106 requires federal agencies, or those they fund or permit, to consider the effects of any of their undertakings (e.g., projects, activities, or programs) on properties that may be eligible for listing or that are listed in the NRHP (i.e., Historic Properties). Regulations implementing Section 106 (36 CFR 800) lay out procedures for federal agencies to meet their Section 106 responsibilities. Although compliance with Section 106 is the responsibility of the lead federal agency, the work necessary to comply may be undertaken by others.

To determine whether an undertaking could affect Historic Properties, cultural resources, including archaeological, historical, and architectural properties, must be inventoried and evaluated for listing in the NRHP.

The Section 106 process generally follows the basic steps listed here, although all steps may not be necessary in each case.

- Once an undertaking is established, initiate consultation with the appropriate parties and plan to involve the public.
- Identify Historic Properties and determine whether your undertaking has potential to affect them.
- Assess effects of the undertaking on Historic Properties to determine if effects are adverse.
- Consult with the State Historic Preservation Officer (SHPO) regarding the identification of Historic Properties, any effects the undertaking may have on Historic Properties, and whether these effects will be adverse.

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- Notify all consulting parties (e.g., Native American or Native Hawaiian tribes and members of the public) of the determinations regarding potential adverse effects to Historic Properties. Any disagreements should be resolved through consultation.
- Consult on ways to modify the undertaking to avoid, minimize, or resolve adverse effects on Historic Properties.
- If needed, come to an agreement on measures and steps to resolve adverse effects through the adoption of either a Memorandum of Agreement (MOA) or, for larger or phased undertakings, a Programmatic Agreement (PA). These are agreement documents that outline the agreed-upon measures to resolve adverse effects.
- Proceed in accordance with the MOA or PA, if executed.

If all parties agree that there are no Historic Properties identified, or that the undertaking will not have an adverse effect on Historic Properties, an MOA or PA may not be necessary. Regardless, each step of this process should be documented for proof of compliance with the Section 106 process.

Federal Historic Significance Criteria

For federal projects, cultural resource significance is evaluated in terms of eligibility for listing in the NRHP. Structures, sites, buildings, districts, and objects more than 50 years of age can be listed in the NRHP as significant Historic Properties; however, properties less than 50 years of age that are of exceptional importance or are contributors to a historic district can also be included in the NRHP. The NRHP is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or traditional cultural significance at the national, state, or local level.

Criteria for listing in the NRHP are outlined in 36 CFR 60.4 and are rooted in the notion that the quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that:

- A. Are associated with events that have contributed to the broad pattern of our history;
- B. Are associated with the lives of people significant in our past;
- C. Embody the distinct characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Have yielded, or are likely to yield, information important in prehistory or history (36 CFR 60.4).

Through amendments to the NRHP in 1992 and their implementing regulations, federal responsibilities for consultations with interested parties, and especially with indigenous tribes, during the Section 106 process were expanded. The result has been a more focused effort by federal agencies to involve interested parties in identifying Historic Properties of cultural significance and, if warranted, in considering effects that may result from a federal undertaking.

CULTURAL AND TRIBAL CULTURAL RESOURCES

Traditional Cultural Properties (TCPs) are often identified as resources during these consultation efforts. TCPs are tangible cultural properties that have historical and ongoing significance to living communities, as evidenced in their traditional cultural practices, values, beliefs, and identity. A TCP must still meet one of the four criteria outlined in 36 CFR Part 60.4, described previously, and must retain integrity. A TCP is simply a different way of grouping or looking at historic resources, emphasizing a place's value and significance to a living community.

As such, the NRHP guidelines describe the types of cultural significance for which properties may be eligible for inclusion in the NRHP. A property with traditional cultural significance will be found eligible for the NRHP because it is associated with cultural practices or beliefs of a living community that are:

- A. Rooted in that community's history, and
- B. Important in maintaining the continuity of the cultural identity of the community.

This type of significance is grounded in the cultural patterns of thought and behavior of a living community and refers specifically to the association between their cultural traditions and a historic property.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act establishes, as national policy, that traditional Native American practices; beliefs; sites, including the right of access; and the use of sacred objects shall be protected and preserved. It does not include provisions for compliance.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act of 1990 protects Native American remains, including Native American graves on federal and tribal lands, and recognizes tribal authority over the treatment of unmarked graves. This Act prohibits the selling of Native American remains and provides guidelines for the return of Native American human remains and cultural objects from any collection receiving federal funding, such as museums, universities, or governments. Noncompliance with this Act can result in civil and criminal penalties.

State Regulations

California Environmental Quality Act

CEQA was passed in 1970 to institute a statewide policy of environmental protection. It requires that public agencies that finance or approve public or private projects must consider the impacts of their actions on the environment, of which, Historical Resources, Unique Archaeological Resources, and Tribal Cultural Resources are a part. A project that may cause a substantial adverse change in the significance of a Historical Resource is a project that may have a significant effect on the environment (PRC 21084.1). Section 21083.2 requires agencies to determine whether proposed projects would have effects on Unique Archaeological Resources, and Section 21074(a)(1) concerns effects to Tribal Cultural Resources.

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CEQA requires that if a project would result in significant impacts on cultural resources that are important or significant, alternative plans or measures must be considered to lessen or mitigate such impacts. Prior to the development of mitigation measures, the importance of cultural resources must be determined. The steps that are generally taken in a cultural resources investigation for CEQA compliance are as follows:

- Identify cultural resources in a project area;
- If cultural resources exist in the footprint of a project, evaluate the significance of resources;
- If significant resources are determined to exist, evaluate the potential impacts of a project on these resources; and
- Develop and implement measures to mitigate the impacts of the project only on significant resources, namely Historical Resources, Unique Archaeological Resources, and Tribal Cultural Resources.

Historical Resource is a term with a defined statutory meaning (PRC Section 21084.1). Under CEQA Guidelines Section 15064.5(a), Historical Resources include the following:

- A resource listed, or determined to be eligible for listing, in the CRHR by the State Historical Resources Commission (PRC Section 5024.1).
- A resource included in a local register of Historical Resources, as defined in PRC Section 5020.1(k), or identified as significant in a Historical Resource survey meeting the requirements of PRC Section 5024.1(g), will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the CRHR (PRC Section 5024.1), including the following:
 - Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 - Is associated with the lives of persons important in our past;
 - Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
 - Has yielded, or may be likely to yield, information important in prehistory or history.

The fact that a resource is not listed or determined to be eligible for listing in the CRHR, not included in a local register of Historical Resources (pursuant to PRC Section 5020.1(k)), or identified in a Historical Resources survey (meeting the criteria in PRC Section 5024.1(g)) does not preclude a lead agency from determining that the resource may be a Historical Resource, as defined in PRC Section 5020.1(j) or 5024.1.

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Historical Resources are usually 45 years or older and must meet at least one of the criteria for listing in the CRHR described previously, in addition to maintaining a sufficient level of integrity.

In addition, CEQA requires lead agencies to determine if a proposed project would have a significant effect on Unique Archaeological Resources. If an archaeological site does not meet the CEQA Guidelines criteria for a Historical Resource, then the site may meet the threshold of PRC Section 21083.2 regarding Unique Archaeological Resources.

The CEQA Guidelines note that if a resource is neither a Unique Archaeological Resource nor a Historical Resource, the effects of the project on that resource shall not be considered a significant effect on the environment (14 California Code of Regulations Section 15064[c][4]). Considerations under CEQA for Tribal Cultural Resources are discussed herein.

California Historic Building Code

The California Historical Building Code (California Code of Regulations, Title 24, Part 8) provides regulations for permitting repairs, alterations, and additions for the preservation, rehabilitation, relocation, reconstruction, change of use, or continued use of historical buildings, structures, and properties determined by any level of government as qualifying as a historical resource. A historical resource is defined in Sections 18950 to 18961 of Division 13, Part 2.7 of the Health and Safety Code and subject to rules and regulations in the California Historical Building Code.

California Health and Safety Code Section 7050.5(b) and CEQA Section 15064.5

Section 7050.5(b) of the California Health and Safety Code specifies protocol when human remains are discovered during activities involving ground disturbance. If human remains are discovered or identified in any location other than a dedicated cemetery, there should be no further disturbance or excavation nearby until the county coroner has determined the area is not a crime scene that warrants further investigation into the cause of death and made recommendations to the persons responsible for the work in the manner provided in PRC Section 5097.98. This section provides guidance for proceeding when human remains associated with Native American burials and associated items are encountered.

CEQA Guidelines Section 15064.5(e) requires that excavation activities stop whenever human remains are uncovered during a project or activity, and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are Native American, the Native American Heritage Commission (NAHC) must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native American descendants, if any, as identified by the NAHC. Under certain circumstances, the lead agency (or applicant), is required to develop an agreement with the Native American descendants for the treatment and disposition of the remains.

In addition to the mitigating provisions pertaining to accidental discovery of human remains, Section 15064.5(f) of the CEQA Guidelines also requires that a lead agency make provisions for the accidental discovery of historical or archaeological resources, generally. These provisions should include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be a Historical Resource or Unique Archaeological Resource, avoidance measures should be implemented, or appropriate mitigation should be available.

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Public Resources Code Section 5097.9

PRC Section 5097.9 states that no public agency or private party on public property shall interfere with the free expression or exercise of Native American religion. The code further states that:

...nor shall any such agency or party cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine located on public property, except on a clear and convincing showing that the public interest and necessity so require.

County and city lands are exempt from this provision, except for parklands larger than 100 acres.

Government Code Section 65352.3-5 (Senate Bill 18)

California Government Code Section 65352.3-5, formerly known as Senate Bill (SB) 18, states that prior to the adoption or amendment of a city or county's general plan, or specific plans, the city or county shall consult with California Native American tribes that are on the contact list maintained by the NAHC. The intent of this legislation is to preserve or mitigate impacts on places, features, and objects, as defined in PRC 5097.9 and PRC 5097.993, that are within the city or county's jurisdiction. The bill also states that the city or county shall protect the confidentiality of information concerning the specific identity, location, character, and use of those places, features, and objects identified by Native American consultation. Government Code 65362.3-5 applies to all general and specific plans and amendments proposed after March 1, 2005.

Assembly Bill 52

Effective July 1, 2015, Assembly Bill (AB) 52 amended CEQA to require that: (1) a lead agency provide notice to those California Native American tribes that requested notice of projects proposed by the lead agency; and (2) the lead agency consult with any tribe that responded to the project notice within 30 days of receipt with a request for consultation. Topics that may be addressed during consultation include Tribal Cultural Resources, the potential significance of project impacts, the type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

A California Native American tribe is defined as "...a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes.

Section 21074(a) of the PRC defines Tribal Cultural Resources for the purpose of CEQA as:

- 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - A. Included or determined to be eligible for inclusion in the California Register of Historical Resources.
 - B. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

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- 2) 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria A and B also meet the definition of a Historical Resource under CEQA, a Tribal Cultural Resource may also require additional consideration as a Historical Resource. Tribal Cultural Resources may or may not exhibit archaeological, cultural, or physical indicators. Recognizing that California tribes are experts in their Tribal Cultural Resources and heritage, AB 52 requires that CEQA lead agencies provide tribes that request notification an opportunity to consult at the commencement of the CEQA process to identify Tribal Cultural Resources. Furthermore, because a significant effect on a Tribal Cultural Resource is considered a significant impact on the environment under CEQA, consultation is used to develop appropriate avoidance, impact minimization, and mitigation measures.

Assembly Bill 168

AB 168 was signed in 2020 and extends the responsibility of a development proponent to consult with Native American tribes to streamlined ministerial approvals for affordable multifamily housing developments under SB 35. A development with streamlined ministerial approval under SB 35 is not subject to CEQA, allowing for such developments to occur without going through a CEQA review or screening process to determine if they would affect Tribal Cultural Resources.

AB 168 requires a development proponent to submit notice of its intent to apply for streamlined approval to the local government prior to the actual application submittal. The local government is then required to provide formal notice to each California Native American tribe that is culturally affiliated with the geographic area of the proposed development and to engage in a scoping consultation regarding the potential effects the proposed development could have on a potential Tribal Cultural Resource (California Code Section 65913.4(b)).

The scoping consultation must commence within 30 days after the proponent submits a notice of intent to apply for ministerial approval and concluded before the proponent can submit the application.

AB 168 deems a project ineligible for the streamlined, ministerial approval process and require it be subject to CEQA if:

- A. The site of the proposed development is a Tribal Cultural Resource that is on a national, state, tribal, or local historic register list;
- B. The local government and the California Native American tribe do not agree that no potential Tribal Cultural Resource would be affected by the proposed development; or
- C. The local government and California Native American tribe find that a potential Tribal Cultural Resource could be affected by the proposed development and the parties do not document an enforceable agreement regarding the methods, measures, and conditions for treatment of those tribal cultural resources, as provided.

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Local Regulations

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives to minimize adverse impacts to cultural and tribal cultural resources in Los Banos. Most provisions related to cultural and tribal cultural resources are included in Title 8, *Building Regulations*, and Title 10, *Parks and Recreation*, as follows:

- **Title 8, *Building Regulations*, Chapter 1, *Building Codes*, Section 8-1.05, *Adoption of California Historical Building Code 2019 Edition*.** The City's building regulations describes specific building standards within the city and prescribes the development standards and specifications that apply to each building in its given district, such as permit fees and improvement standard. The City has adopted the California Historical Building Code, which provides regulations for the preservation, restoration, rehabilitation, relocation, or reconstruction of qualified historical buildings or properties.
- **Title 10, *Parks and Recreation*, Chapter 1, *Trees, Shrubs, and Plants*, Section 10-109, *The Designation and Protection of Heritage Trees*.** This section establishes the definition of a heritage tree in Los Banos and nomination process by any person and with the written consent of the property owner(s), any tree or group of trees recommended by the Parks and Recreation Commission and identified by City Council resolution upon a finding that the tree or group of trees is: (1) Of historic value because of its association with a place, building, natural feature or event of local, regional, national or historic significance; or (2) Identified on any historic or cultural resources survey as a significant feature of a landmark, historic site or historic district; or (3) Representative of a significant period of the City's growth or development and was the result of a planting dedicated by citizens, civic groups or the City; or (4) Identified because of its age, beauty, and/or uniqueness, especially if representative of a species that has significance in natural history and/or ecology.

Los Banos Community Design Standards

The City adopted the *Community Design Standards* in November 2008, to promote excellence in the design of buildings, sites, and neighborhoods. The *Community Design Standards* are applied to new development or improvements to existing development in the following General Plan land use designations:

- | | |
|-----------------------|---------------|
| ▪ Downtown Commercial | ▪ Commercial |
| ▪ Highway Commercial | ▪ Residential |

The *Community Design Standards* are intended to assist staff and the decision-making bodies in judging the suitability of proposed projects in terms of their architecture, site design, landscaping, circulation, and compatibility with existing and planned adjacent development. The *Community Design Standards* are authorized through implementing ordinances in the LBMC that spell out procedures and adopt the provisions of the *Community Design Standards* by reference.

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The main goal of the *Community Design Standards* handbook is to help maintain the City's small-town atmosphere, while ensuring all new development is following the highest level of design quality. Preserving and enhancing the Downtown Commercial design of the city is a key element of the design standards handbook.

The *Community Design Standards* guidelines contains guiding policies pertaining to historic building preservations to limit the demolition or alteration to a building's façade of existing "historical" sites. These standards include, but are not limited to, the following:

- Prior to demolition or alteration, property owners must request a State Historic Resources Evaluation via Department of Parks and Recreation to determine if the structure has historic or architectural significance.
- Any historic or architecturally significant structure in the downtown commercial or highway commercial district determined as deteriorated or damaged beyond repair by a licensed structural engineer may be demolished.
- When restoring a building, the City's main priority is to maintain the original physical characteristics from the time period a structure existed to ensure the City's historic authenticity.
- Historic structures shall be reused as it was historically or be given a similar new use, requiring minimal change to its distinctive exterior design.
- Distinctive features that characterize a historic building shall not be removed or altered.
- Any new development adjacent to historic buildings are not permitted to clash or dominate the historic color, scale, setbacks, bulk, or enormous disparity in height.
- The replacement of intact or repairable historic materials or alteration of features, and spatial relationships that characterize a building or property shall not be permitted.
- Restoration treatment methods that cause damage to historic materials shall not be used.
- New additions, exterior alterations, or related new construction shall not destroy the historic materials, features, and spatial relationships that characterize a building or property.
- A historical review must precede reconstruction of a landscape, building, structure, or object in its historic location to identify and evaluate those features and artifacts that are essential to its accurate reconstruction.
- Preservation plans are to include measure to preserve any remaining historic materials, features, and spatial relationships when reconstructing a building.

CULTURAL AND TRIBAL CULTURAL RESOURCES**4.5.1.3 EXISTING CONDITIONS**

Information provided in this section is based primarily on the *Cultural Resources Records Search and Data Gathering Summary for the Los Banos General Plan Environmental Impact Report (EIR) Project, Merced County* prepared by ECORP Consulting, Inc. in March 2022, included as Appendix D to this EIR.¹ The Central California Information Center (CCIC) of California Historical Resources Information System (CHRIS) at California State University, Stanislaus, completed the records search for the EIR Study Area on January 21, 2022. The records search consisted of a review of previous research and literature, records on file with the CCIC for previously recorded resources, and historical aerial photographs and maps of the project vicinity. The CHRIS records search identified a total of 77 cultural resources within the EIR Study Area, including pre-contact and historic-era archaeological resources, built environment resources, and resources that include both archaeological and built environment components.

Historical Context

Europeans entered the Los Banos region in 1805 when Gabriel Moraga and his company rode through the area during his mission to explore the San Joaquin Valley. Drawn by the beaver and game that occupied the area, American trappers came to Merced County as early as 1827. The discovery of gold in 1848 drew more people to the state and the San Joaquin Valley served as a source of cattle and sheep for hides, wool, meat, and tallow for the incoming miners and new settlers. The present town of Los Banos originated in the Lone Willow Stage Station, built in 1858 on the west bank of what is now Mud Slough. In 1865, Gustave Kreyenhagen opened a general store in the area, but moved to the junction of the state road and the Stockton-Visalia freight road for better trade. Kreyenhagen moved again in 1870 due to the arrival of Miller and Lux, this time to about two miles south of the present town of Volta. In 1873, an official post office was established in Kreyenhagen's store under the name Los Banos, after the nearby creek. With the arrival of the railroad on the west side of the San Joaquin Valley in 1889, Henry Miller of Miller and Lux was a driving force in the establishment of Los Banos along the railroad tracks. Los Banos became the headquarters of Miller and Lux as early as 1873. Miller invested enormously in the area: improving infrastructure, planting trees, laying out a city park, and establishing a hotel, bank, and a company store for the community. Los Banos incorporated in 1907. Agriculture acted as the driving force of the economy for most of the twentieth century and was largely dependent on the availability of water resources. The construction of the California Aqueduct and the San Luis Reservoir during the 1960s for the Central Valley Project led to greater population density in the region.

Historical Resources

Historic cultural resources generally include buildings, roads, trails, bridges, canals, and railroads usually associated with the time period beginning with the first EuroAmerican contact. Because the settlement of Los Banos dates back to the 1880s, after relocation of the city from its original site due to the arrival of Miller and Lux and the railroad, the city is rich in historic cultural resources.

¹ ECORP Consulting, Inc., March 11, 2022. *Cultural Resources Records Search and Data Gathering Summary for the Los Banos General Plan Environmental Impact Report (EIR) Project, Merced County*

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The Historic Property Data File Historic Resources Inventory and the Built Environment Resource Directory (BERD), maintained by the State Office of Historic Preservation (OHP), identify recorded properties and their eligibility for listing in the National Register. Properties listed or found eligible for listing in the National Register are also automatically eligible for the California Register.

The listing for Merced County included three resources within the EIR Study Area eligible for listing in the National Register:

- Canal Farm Inn
- Los Banos, the settlement
- Los Banos Creek (the site of the original town in the southwestern portion of the EIR Study Area)

The BERD provides information regarding non-archaeological resources in the State OHP's inventory. The listing for Los Banos indicates that 37 of 56 built environment resources were also included in the CHRIS database. Of these 56 resources, 5 are on or have been determined eligible for National Register listing:

- BRIDGE #39-200, The Delta Mendota Canal Bridge
- The Old Bank Building/Bank of Los Banos Building at 836 6th Street (currently National Register listed)
- The Church of St. Joseph at 1109 K Street (currently National Register listed)
- Fegundo's Barn at 20180 South Mercey Springs Road
- 65918 State Route 153, 637 State Route 152

The California Historical Landmarks program includes sites that are of statewide historical importance and are the first, last, only, or most significant of a type in a large geographical area. Resources in the EIR Study Area that the state has designated as California Historical Landmarks include:

- Los Banos (Landmark No. 55), Los Banos Park at 803 East Pacheco Boulevard
- Canal Farm Inn (Landmark No. 548) at 1460 East Pacheco Boulevard

Archaeological Resources

Eleven of the sixteen previously recorded archaeological sites in the EIR Study Area are either pre-contact archaeological resources or include a pre-contact archaeological component. Five sites are solely historic period, two of which also have a built environment component. According to the OHP, none of the archaeological sites are listed on or have been formally recommended eligible for listing in the National Register.

The overall pre-contact archaeological sensitivity of the EIR Study Area is generally considered high, particularly in the eastern half in areas near water sources such as ponds and marshes. The area around and to the south of Mud Slough is especially rich in archaeological resources. There is low pre-contact archaeological sensitivity in areas that are highly developed, contain many buildings and structures, and are along heavily trafficked transportation corridors. Pre-contact site types can overlap and include habitation sites, limited occupation sites, lithic reduction stations, and burial locations. Isolated artifacts are the most abundant pre-contact resource type found in the EIR Study Area. Five of the pre-contact

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resources recorded were isolated groundstone or lithic artifacts in the eastern portion of the EIR Study Area. Two simple lithic scatters were found near Mud Slough, a habitation site that includes lithic scatter components was discovered near the southern portion of the marshy area near Mud Slough, and two large habitation sites that include house pits and burials are south of Mud Slough, in the southeastern portion of the EIR Study Area.

The historic archaeological sensitivity is considered moderately high in areas where historic records indicate transportation routes, agricultural settlements, and mining. There is moderate historic-era sensitivity in open areas that were historically used as farms and ranches in the western half of the EIR Study Area and low historic-era sensitivity in the section of the city that have been established more recently, such as the developments in the outskirts of the historic downtown and residential areas. Historic site types include old transportation corridors and alignments, remnants of activities associated with historic homesteading, ranching and agriculture, mining, and commerce.

Tribal Cultural Resources

Los Banos is within the aboriginal territory of the Nopchinchí tribelet of the Northern Valley Yokuts, who lived in the San Joaquin Valley. Little is known of these inhabitants but that their aboriginal lifestyle disappeared in the early nineteenth century when they changed from hunters and gatherers to agricultural laborers who lived at the missions. Most of the aboriginal population gradually moved to the ranches to work as manual laborers in 1834, due to secularization of the missions by Mexico.

A sacred lands file search conducted by the NAHC for the EIR Study Area was requested in February 2022. Due to staffing issues, a Sacred Lands File search has not been completed at the time of the release of this Draft EIR. However, the result of the Sacred Lands File check conducted through the NAHC from a separate request in April 2020 was positive. Likewise, and pursuant to California Government Code Section 65352.3-5 (SB 18), a list of local Native American representatives as potentially having local knowledge was requested but has also not been provided by NAHC at this time. The City will continue to reach out to the Native American representatives once the list is provided, but in the interim has reached out to the following that is based on information from the NAHC in April 2020:

- Valentin Lopez, Chairperson of the Amah Mutsun Tribal Band
- Katherine Perez, Chairperson of the North Valley Yokuts Tribe
- William Leonard, Chairperson of the Southern Sierra Miwuk Nation

Additionally, the City has notified the Torres Martinez Desert Cahuilla Indians tribe as they requested notification of projects in Los Banos pursuant to AB 52.

The City notified the tribal representatives about the proposed project and asked for information about potential resources at or near the project site. No responses were received at the time of the release of this Draft EIR. The City remains open to consultation with tribal representatives.

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4.5.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in significant impacts to cultural and tribal resources if it would:

1. Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5.
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.
3. Disturb any human remains, including those interred outside of dedicated cemeteries.
4. 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; (ii) Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or (iii) 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.
5. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to cultural and tribal cultural resources.

4.5.3 IMPACT DISCUSSION

CUL-1	Implementation of the proposed project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5.
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The types of cultural resources that meet the definition of historical resources under CEQA Section 21084.1 generally consist of districts, sites, buildings, structures, and objects that are significant for their traditional, cultural, and/or historical associations. Under CEQA, both prehistoric and historic-period archaeological sites may qualify based on historical associations. As such, the two main historical resources that are subject to impact, and that may be impacted by implementation of the proposed project, are historical archaeological deposits and historical architectural resources. Impacts to archaeological resources are described in impact discussion CUL-2, and human remains are addressed in impact discussion CUL-3.

As discussed under Section 4.5.1.2, *Existing Conditions*, several historical resources exist within the city. Therefore, implementation of the proposed project could have the potential to directly impact cultural resources by altering land use regulations that govern these properties or surrounding sites. The proposed General Plan 2042 would allow for an increase in residential, commercial, and industrial development in

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Los Banos over the planning horizon (2042). Potential future development permitted under the proposed project could cause a significant impact on the historical resources in question if new construction were incompatible with the existing cultural resources' site relationships that contribute to the significance of the existing property or if the massing (height and bulk) of new construction were incompatible with the historical resource. Lastly, the design characteristics and materials of new construction could impact adjoining or nearby historical buildings. Because the proposed project would allow denser new development by encouraging infill through Policy LU-P6.4, if new development near historic properties is not compatible, impacts on historical resources could be significant. Additionally, if new development were to directly impact existing resources, impacts on historical resources could be significant.

Section 8-1.05, *Adoption of California Historical Building Code 2019 Edition*, of the LBMC adopted the California Historical Building Code, 2019 Edition, which provides regulations for permitting repairs, alterations, and additions necessary for the preservation, rehabilitation, relocation, related construction, change of use, or continued use of a qualified historical building or structure. LBMC Section 10-109, *The Designation and Protection of Heritage Trees*, establishes standards that govern the treatment of Heritage Trees that are of historic value, identified as a significant feature of a historic resource, representative of a significant period of the city's growth, or identified as a species that has significance in natural history and/or ecology. Additionally, the City's *Community Design Standards* guidelines contains guiding policies pertaining to historic building preservations to limit the demolition or alteration to a building's façade of existing historical sites. Standards include requesting a State Historic Resources Evaluation to determine any historic or architectural significance prior to demolition or alteration, avoiding clash or domination of historic color, scale, setbacks, bulk, or enormous disparity in height for new development adjacent to historic buildings, and avoiding destruction of historic materials, features, and spatial relationships that characterize a building or property during new construction, among other restoration and reconstruction standards.

Furthermore, the Land Use (LU) Element and the Parks, Open Space, and Conservation (P) Element of the Los Banos General Plan 2042, contains goals, policies, and actions that require local planning and development decisions to consider key characteristics that contribute to the identity and image of Los Banos, and that positively reinforcing its visual character and relationship to its natural setting and cultural context. The following goals, policies, and programs would minimize impacts to historic resources.

- **Goal LU-4.** Protect and enhance Los Banos' image and unique sense of place.
 - **Policy LU-P4.1.** Preserve and build upon Los Banos' historic charm and small-town feel.
 - **Policy LU-P4.2.** Ensure that both new development and exterior remodels of existing buildings are compatible with nearby buildings, public spaces, and cultural/historic resources in scale, orientation, and materials.
 - **Policy LU-P4.3** To the extent possible, ensure that new public and private investment preserves, enhances, rehabilitates, and celebrates local landmarks, buildings, neighborhoods, historic treasures, open spaces, cultures, and traditions that make Los Banos unique.
 - **Policy LU-P4.4.** Safeguard and leverage Los Banos' agricultural heritage for the benefit of the community.

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- **Goal LU-6.** Develop a vibrant, mixed-use Downtown that is the pride of the community.
 - **Policy LU-P6.2.** Set a high standard for Downtown design and amenities to make residents and visitors feel welcome, safe, and engaged.
 - **Policy LU-P6.4.** Incentivize and encourage infill development, adaptive reuse of structures, and development on underutilized land to serve a variety of uses.
 - **Action LU-A6.2.** Establish zoning, review procedures, and fees that encourage rehabilitation, renovation, preservation, and reuse of Downtown buildings with a mix of commercial, entertainment, and residential uses that promote around-the-clock activity.
 - **Action LU-A6.5.** Amend Title 9 of the City Municipal Code (Planning and Zoning) to provide flexibility for redevelopment of historic structures in the Downtown to meet current needs while maintaining the overall historic value.
- **Goal P-10.** Protect and restore the cultural and historic resources of Los Banos.
 - **Policy P-P10.1.** Preserve the archaeological and historic resources that are found within the Los Banos Planning Area.
 - **Policy P-P10.5.** Require that new development analyze and avoid any potential impacts to archaeological, paleontological, and designated historic resources by:
 - Requiring a record search at the Central California Information Center located at California State University Stanislaus and other appropriate historical repositories for development proposed in areas that are considered archaeologically sensitive;
 - Studying the potential effects of development and construction (as required by the California Environmental Quality Act);
 - Requiring pre-construction field surveys (where appropriate) and monitoring during any ground disturbance for all development in areas of historical and archaeological sensitivity; and
 - Implementing appropriate measures or project alternatives to avoid significant impacts to historical resources. Where such impacts are unavoidable, document the structure(s) in accordance with the National Park Service's Historic American Building Survey/Historic American Engineering Record (HABS/HAER). Such effects would still be considered significant.
 - **Policy P-P10.6.** Promote the listing of individual properties and historic districts on the National Register of Historic Places and in the California Register of Historical Resources.
 - **Action P-A10.1.** Explore the feasibility of creating a heritage trail linking significant historical landmarks in Los Banos.
 - **Action P-A10.2.** Retain a qualified architectural historian to undertake a survey to identify historic properties and historic districts eligible for listing on the National Register of Historic Places and in the California Register of Historical Resources.
 - **Action P-A10.3.** Update the City's building regulations to implement the State Historic Building Code for alterations to designated historic properties.

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Implementation of the General Plan goals, policies, and actions will ensure that new development and exterior remodels are compatible with cultural and historic resources; that landmarks and historic treasures will be preserved, enhanced, and rehabilitated; and that cultural and historic resources of Los Banos will be protected and restored. Additionally, implementation of the General Plan would require the preservation of historic resources and require new development to analyze and avoid any potential impacts to designated historic resources through record searches, preconstruction field surveys, ground-disturbance monitoring, and implementation of appropriate measures or project alternatives to avoid identified significant impacts.

Finally, CEQA would require that future potential projects permitted under the proposed General Plan 2042 with the potential to significantly impact cultural resources be subject to project-level CEQA review wherein the future potential project's potential to affect the significance of a surrounding historical resource would be evaluated and mitigated to the extent feasible. The requirement for subsequent CEQA review, pursuant to state law, would minimize the potential for new development to indirectly affect the significance of existing historical resources to the maximum extent practicable.

Potential impacts from future development on historical resources could lead to (1) demolition, which by definition results in the material impairment of a resource's ability to convey its significance; (2) inappropriate modification, which may use incompatible materials, designs, or construction techniques in a manner that alters character-defining features; and (3) inappropriate new construction, which could introduce incompatible new buildings that clash with an established architectural context. While any of these scenarios, especially demolition and alteration, have the potential to change the historic fabric or setting of an architectural resource such that the resource's ability to convey its significance may be materially impaired, adherence to the Historical Building Code, Community Design Standards, and proposed General Plan 2042 goals, policies, and actions identified above and compliance with federal and state laws as described in Section 4.5.1.2, *Regulatory Framework*, would ensure future development would not be detrimental or injurious to property or improvements in the vicinity and impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

CUL-2	Implementation of the proposed project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines, Section 15064.5.
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Historical and pre-contact archaeological deposits that meet the definition of archaeological resources under CEQA could be damaged or destroyed by ground-disturbing activities associated with potential future development in Los Banos. A substantial adverse change in the significance of an archaeological resource would occur from its demolition, destruction, relocation, or alteration such that the significance of the resource would be materially impaired per CEQA Guidelines Section 15064.5(b)(1). Should this occur, the ability of the deposits to convey their significance, either through containing information important in prehistory or history, or through possessing traditional or cultural significance to Native American or other descendant communities, would be materially impaired.

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As discussed in Section 4.5.1.3, *Existing Conditions*, there were 16 recorded archaeological sites in the EIR Study Area, none of which are listed on or have been formally recommended eligible for listing in the National Register. The overall pre-contact archaeological sensitivity of the EIR Study Area is generally considered high, particularly in the eastern half in areas near water sources such as ponds and marshes. The area around and to the south of Mud Slough is especially rich in archaeological resources. The historic archaeological sensitivity is considered moderately high in areas where historic records indicate transportation routes, agricultural settlements, and mining. There is moderate historic-era sensitivity in open areas that were historically used as farms and ranches in the western half of the EIR Study Area.

The Land Use (LU) Element and the Parks, Open Space, and Conservation (P) Element of the Los Banos General Plan 2042 contains goals and policies that require local planning and development decisions to consider impacts to cultural resources, including archaeological resources. The following General Plan goals and policies would serve to minimize potential adverse impacts on archaeological resources.

- **Goal LU-1.** Provide for orderly, well-planned, and balanced development.
 - **Policy LU-P1.2.** Maintain a well-defined compact urban form, with a defined urban growth boundary and development intensities on land designated for urban uses.
- **Goal LU-4.** Protect and enhance Los Banos' image and unique sense of place.
 - **Policy LU-P4.3.** To the extent possible, ensure that new public and private investment preserves, enhances, rehabilitates, and celebrates local landmarks, buildings, neighborhoods, historic treasures, open spaces, cultures, and traditions that make Los Banos unique.
- **Goal P-10.** Protect and restore the cultural and historic resources of Los Banos.
 - **Policy P-P10.1.** Preserve the archaeological and historic resources that are found within the Los Banos Planning Area.
 - **Policy P-P10.2.** Preserve any tribal cultural resources that are found within the Los Banos Planning Area.
 - **Policy P-P10.3.** Require consultation with Native American tribes during General Plan amendments or updates, Specific Plans, or Specific Plan amendments, and any project that may impact a tribal cultural resource.
 - **Policy P-P10.4** After consultation with local Native American tribes affected by the General Plan, Specific Plan, or any project that may affect that tribe, determine which areas may be of cultural significance and determine how the areas can be preserved. Continue consultation with tribes throughout implementation of the plan.
 - **Policy P-P10.5.** Require that new development analyze and avoid any potential impacts to archaeological, paleontological, and historic resources by:
 - Requiring a record search at the Central California Information Center located at California State University Stanislaus and other appropriate historical repositories for development proposed in areas that are considered archaeologically sensitive;
 - Studying the potential effects of development and construction (as required by the California Environmental Quality Act);

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- Requiring pre-construction field surveys (where appropriate) and monitoring during any ground disturbance for all development in areas of historical and archaeological sensitivity; and
- Implementing appropriate measures or project alternatives to avoid impacts to historical resources. Where such impacts are unavoidable, document the structure(s) in accordance with the National Park Service's Historic American Building Survey/Historic American Engineering Record (HABS/HAER). Such affects would still be considered significant.

As demonstrated, the proposed General Plan goals and policies encourage infill development, adaptive reuse of structures, and development on underutilized land, which would reduce the potential for disturbing archaeological deposits since ground-disturbing activities have already taken place in developed areas. Additionally, implementation of the proposed project would require the preservation of archaeological and historic resources that are found within the Los Banos Planning Area and would require new development to analyze and avoid any potential impacts to archaeological resources through record searches, preconstruction field surveys, ground-disturbance monitoring, and implementation of appropriate measures or project alternatives to avoid identified significant impacts. The General Plan also promotes the registration of historic sites, buildings, and structures in the National and California Register and requires applicants of major development projects to consult with Native American representatives regarding cultural resources to identify locations of importance to Native Americans, including archaeological sites and traditional cultural properties. Compliance with existing federal, state, and local laws and regulations, and the proposed General Plan 2042 goals and policies listed previously would protect recorded and unrecorded archaeological deposits in the greater EIR Study Area by providing for the early detection of potential conflicts between development and resource protection, and by preventing or minimizing the material impairment of the ability of archaeological deposits to convey their significance through excavation or preservation would ensure that potential impacts from implementation of the proposed project would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

CUL-3	Implementation of the proposed project would not disturb any human remains, including those interred outside of dedicated cemeteries.
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Previously undiscovered human remains associated with pre-contact archaeological deposits may exist within the EIR Study Area, as ground-disturbing activities sometimes uncover such previously unrecorded remains. As described in impact discussion CUL-2, ground-disturbing activities and excavation for the project would have the potential to uncover buried resources. It is possible that human remains may be present in the EIR Study Area. Descendant communities may ascribe religious or cultural significance to such remains, making any such disturbances a potentially significant impact.

As described in impact discussion CUL-1, the proposed Land Use (LU) Element and the Parks, Open Space, and Conservation (P) Elements of the General Plan 2042 contains goals and policies that require local planning and development decisions to consider impacts to cultural resources, including human remains resources. Specifically, Policy P-P10.5 requires that new development analyze and avoid any potential impacts to archaeological resources, a record search at appropriate historical repositories for

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development proposed in areas that are considered archaeologically sensitive, and preconstruction field surveys (where appropriate) and monitoring during any ground disturbance for all development in areas of historical and archaeological sensitivity. Additionally, procedures of conduct following the discovery of human remains have been mandated by Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98, and the California Code of Regulations Section 15064.5(e) (CEQA), as described in Section 4.5.1.2, *Regulatory Framework*. According to the provisions in CEQA, in the event a human burial or skeletal element is identified during excavation or construction, work in that location shall stop immediately until the find can be properly treated. The Merced County Coroner shall be notified immediately. The Coroner shall then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner shall notify the NAHC within 24 hours, who will, in turn, notify the person the NAHC identifies as the Most Likely Descendant (MLD) of any human remains. Further actions shall be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. If the NAHC is unable to identify an MLD, the MLD fails to make a recommendation within 48 hours after being notified, or the landowner rejects the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the landowner, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance.

Therefore, with the mandatory regulatory procedures and compliance with the General Plan policies, potential impacts related to the potential discovery or disturbance of any human remains accidentally unearthed during construction activities associated with future development resulting from implementation of the proposed project would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

CUL-4	Implementation of the proposed project would not 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; (ii) Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or (iii) 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.
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As previously described in Section 4.5.1.2, *Regulatory Framework*, a tribal cultural resource is defined under AB 52 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, or object with cultural value to a California Native American tribe that is either

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included or eligible for inclusion in the California Register or included in a local register of historical resources, or if the City of Los Banos, acting as the lead agency, supported by substantial evidence, chooses at its discretion to treat the resource as a tribal cultural resource.²

As described under impact discussions CUL-2 and CUL-3, impacts from potential future development in the EIR Study Area could impact unknown archaeological resources, including Native American artifacts and human remains.

The General Plan 2042 goals and policies listed in impact discussion CUL-2 require local planning and development decisions to consider impacts to tribal cultural resources. Specifically, Policy P-P10.2 requires the City to preserve any tribal cultural resources that are found in the Los Banos Planning Area; Policy P-P10.3 requires the City to consult with Native American tribes during any project that may impact a tribal cultural resource; and Policy P-P10.4 requires new development to analyze and avoid any potential impacts to archaeological resources, which could be tribal cultural resources, through record searches, preconstruction field surveys, ground-disturbance monitoring, and implementation of appropriate measures or project alternatives to avoid identified significant impacts. Additionally, Policy LU-P1.2 requires the City to maintain a well-defined compact urban form, thus reducing potential impacts to development in undisturbed lands and Policy LU-P4.3 requires the City, to the extent possible, to preserve historic treasures, open spaces, and cultures and traditions, all of which would support minimizing potential impacts to tribal cultural resources.

Compliance with existing federal, state, and local laws and regulations, and the General Plan goals and policies listed under impact discussion CUL-2 and CUL-3 would protect unrecorded tribal cultural resources in the EIR Study Area by providing for the early detection of potential conflicts between development and resource protection, and by preventing or minimizing the material impairment of the ability of archaeological deposits to convey their significance through excavation or preservation.

Significance without Mitigation: Less than significant.

CUL-5	Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to cultural or tribal cultural resources.
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The impacts of potential future development under implementation of the proposed project on cultural resources and tribal cultural resources tend to be site specific, and cumulative impacts would occur when a series of actions leads to the loss of a substantial type of site, building, or resource. For example, while the loss of a single historic building may not be significant to the character of a neighborhood or streetscape, continued loss of such resources on a project-by-project basis could constitute a significant cumulative effect. This is most obvious in historic districts, where destruction or alteration of a percentage of the contributing elements may lead to a loss of integrity for the district overall. For example, changes to the setting or atmosphere of an area by adding modern structures on all sides of a historically significant

² Public Resources Code Sections 21074(a)(1) and (2).

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building, thus altering the aesthetics of the streetscape, would create a significant impact. Destruction or relocation of historic buildings would also significantly impact the setting.

Future development planned for under the proposed project would be primarily within the developed portions of the EIR Study Area. This, in conjunction with buildout of the city and the region, has the potential to cumulatively impact cultural resources and tribal cultural resources. As previously discussed, impacts to historical resources, archaeological resources, human remains, or tribal cultural resources identified within the areas of potential development in the EIR Study Area would be less than significant. Additionally, the existing federal, state, and local regulations and General Plan goals, policies, and actions described throughout this chapter serve to protect cultural resources in Los Banos. Continued compliance with these regulations substantially decreases potential impacts to historical resources, archaeological resources, human remains, and tribal cultural resources to the maximum extent practicable.

Significance without Mitigation: Less than significant.

4.6 ENERGY

This chapter describes the potential energy impacts associated with the adoption and implementation of the Los Banos General Plan 2042 and Annexation Ordinance (proposed project). This chapter 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 that could minimize any potentially significant impacts.

4.6.1 ENVIRONMENTAL SETTING

4.6.1.1 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.¹

On December 21, 2021, under direction of Executive Order (EO) 13990 issued by President Biden, the National Highway Traffic Safety Administration repealed SAFE Part One, which had preempted state and local laws related to fuel economy standards. In addition, on August 5, 2021, the National Highway Traffic Safety Administration announced new proposed fuel standards in response to EO 13990. Fuel efficiency under the standards proposed would increase 8 percent annually for model years 2024 to 2026 and increase estimate fleetwide average by 12 MPG for model year 2026 relative to model year 2021.²

¹ Federal Register, 2020, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks: Final Rule, Vol. 85 Federal Register, No. 84.

² National Highway Traffic Safety Administration, 2021, USDOT Proposes Improved Fuel Economy Standards for MY 2024-2026 Passenger Cars and Light Trucks, <https://www.nhtsa.gov/press-releases/fuel-economy-standards-2024-2026-proposal>, accessed March 16, 2022.

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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.³

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.

³ United States Environmental Protection Agency, 2007, Summary of the Energy Independence and Security Act Public Law 110-140, <https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act>, accessed March 2, 2022.

State Regulations

Warren-Alquist Act

Established in 1974, the Warren-Alquist Act created the California Energy Commission (CEC) in response to the energy crisis of the early 1970s and the state's unsustainable growing demand for energy resources. The CEC's core responsibilities include advancing State energy policy, encouraging energy efficiency, certifying thermal power plants, investing in energy innovation, developing renewable energy, transforming transportation, and preparing for energy emergencies. The Warren-Alquist Act is updated annually to address current energy needs and issues, and its latest edition was in January 2022.

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. The *Long-Term Energy Efficiency Strategic 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;⁴
- All new commercial construction in California will be zero net energy 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 California's electricity and gas use.

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.

⁴ 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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- **Goal 2.** 50 percent of existing buildings will be retrofit to ZNE 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 to reach at least 20 percent by December 30, 2010. EO 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 2020, the three-largest retail energy utilities provided an average of 43 percent of its supplies from renewable energy sources. Community choice aggregators provided an average of 41 percent of its supplies from renewable sources.⁵

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

⁵ California Public Utilities Commission, 2021, 2021 Padilla Report: Costs and Savings for the RPS Program (Public Utilities Code Section 913.3), https://www.cpuc.ca.gov/-/media/cpuc-website/industries-and-topics/documents/energy/rps/2021-padilla-report_final.pdf, accessed March 2, 2022.

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.

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.⁶

Title 24, Part 6, 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 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.

The 2019 Building Energy Efficiency Standards, which were adopted on May 9, 2018, went into effect starting January 1, 2020. The 2019 standards move toward cutting energy use in new homes by more than 50 percent and will require installation of solar photovoltaic systems for single-family homes and multifamily buildings of three stories and less. The 2019 standards focus on four key areas: (1) smart residential photovoltaic systems, (2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa), (3) residential and nonresidential ventilation requirements, and (4) nonresidential lighting requirements.⁷ Under the 2019 standards, nonresidential buildings are generally 30 percent more energy efficient compared to the 2016 standards, and single-family homes are generally 7 percent more energy efficient.⁸ When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy compared to homes built to the 2016 standards.⁹

⁶ California Energy Commission, 2017, 2016 Appliance Efficiency Regulations, <https://pdf4pro.com/cdn/2016-appliance-efficiency-regulations-5104f7.pdf>, accessed February 20, 2022.

⁷ California Energy Commission, 2021, Amendments to the Building Energy Efficiency Standards (2022 Energy Code) Draft Environmental Report. CEC-400-2021-077-D.

⁸ California Energy Commission, 2021, Amendments to the Building Energy Efficiency Standards (2022 Energy Code) Draft Environmental Report. CEC-400-2021-077-D.

⁹ California Energy Commission, 2021, Amendments to the Building Energy Efficiency Standards (2022 Energy Code) Draft Environmental Report. CEC-400-2021-077-D.

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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 noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers.¹⁰

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 (Title 24 of the California Code of Regulations, 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, and were last updated in 2019. The 2019 Standards became effective January 1, 2020.

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.¹¹

Assembly Bill 1493

California vehicle GHG emission standards were enacted under Assembly Bill (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 year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the CAFE standards under the previous *Federal* section). In January 2012, the California Air Resources Board (CARB) approved the Pavley Advanced Clean Cars

¹⁰ California Energy Commission, 2021, Amendments to the Building Energy Efficiency Standards (2022 Energy Code) Draft Environmental Report. CEC-400-2021-077-D.

¹¹ California Building Standards Commission, 2019, 2019 California Code of Regulations Title 24, Part 11, <https://codes.iccsafe.org/content/CAGBSC2019/cover>, accessed February 18, 2022.

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.¹²

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 Merced County Association of Governments (MCAG) is the MPO for the Merced County region, which includes the city of Los Banos.

Executive Order N-79-20

On September 23, 2020, EO 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 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 trucks¹³ 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 USEPA, and local air districts.

¹² California Air Resources Board, 2017, January 18. California's Advanced Clean Cars Midterm Review. https://ww2.arb.ca.gov/sites/default/files/2020-01/ACC%20MTR%20Summary_Ac.pdf, accessed May 16, 2022.

¹³ Drayage trucks are on-road, diesel-fueled, heavy-duty trucks that transport containers and bulk to and from the ports and intermodal railyards as well as to many other locations.

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Regional Regulations

MCAG'S 2018 Regional Transportation Plan and Sustainable Communities Strategy

SB 375 requires each MPO to prepare a sustainable communities strategy in its regional transportation plan. Merced County Association of Governments (MCAG) updated and adopted a sustainable communities strategy in its regional transportation plan on August 6, 2018, called 2018 Regional Transportation Plan and Sustainable Communities Strategy for Merced County (2018 RTP/SCS).¹⁴ Under this plan, the Merced region would exceed the GHG targets provided under SB 375 with a 15 percent per-capita reduction from 2005 levels by 2020 and a 25 percent per-capita reduction from 2035 GHG emission levels by 2035. This plan focuses on achieving GHG-reduction goals by constructing more infill development in downtowns and centers in close proximity to jobs and services. In addition, the plan emphasizes transportation investments in transportation facilities to improve bicycle and pedestrian mobility. Furthermore, implementation of this plan is projected to result in a decrease in VMT throughout the region.

Local Regulations

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives pertaining to GHG emissions. The LBMC is organized by title, chapter, and section, and in some cases articles.¹⁵ Most provisions related to GHG emissions impacts are included in Title 8, *Building Regulations*, as follows:

- **Chapter 1, *Building Codes*.** This chapter adopts the following codes:
 - Section 8-1.01, *Adoption of the California Building Code 2019 Edition*
 - Section 8-1.03, *Adoption of the Uniform Solar Energy Code 2006 Edition*
 - Section 8-1.04, *Adoption of the California Energy Code 2019 Edition*
 - Section 8-1.12, *Adoption of the California Green Building Code 2019 Edition*
- **Chapter 6.04, *Solar Energy System Requirements*.** This chapter requires that all solar energy systems shall meet applicable health and safety standards and requirements imposed by the State and the City.
- **Chapter 1.03, *Adoption of Uniform Solar Energy Code 2006 Edition*.** This chapter adopts Uniform Solar Energy Code 2006 Edition, published by the International Association of Plumbing and Mechanical Officials, for buildings and structures within the city.

¹⁴ Merced County Association of Government (MCAG). 2018 Regional Transportation Plan & Sustainable Communities Strategy for Merced County, <https://www.mcagov.org/DocumentCenter/View/1731/MCAG-2018-RTP-finaldraft-2018-08-06?bidId=>, accessed April 4, 2022.

¹⁵ Los Banos, 2022. Municipal Code, https://library.qcode.us/lib/los_banos_ca/pub/municipal_code, accessed May 16, 2022.

4.6.1.2 EXISTING CONDITIONS

Electricity and Natural Gas

Electricity is quantified using kilowatts (kW) and kilowatt-hours (kWh). A kW is a measure of 1,000 watts of electrical power and a kWh is a measure of electrical energy equivalent to a power consumption of 1,000 watts for one hour. The kWh is commonly used as a billing unit for energy delivered to consumers by electric utilities. According to the CEC's "Tracking Progress" regarding statewide energy demand, total electric energy usage in California was 288,613 gigawatt hours in 2017. A gigawatt is equal to one million kW.

Pacific Gas and Electric Company

Electricity

Pacific Gas and Electric Company (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.¹⁶ PG&E owns and maintains above- and belowground networks of electric and gas transmission and distribution facilities throughout the city.

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, made up 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 gas customers in northern and central California.¹⁷ 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. PG&E also adopted the Pipeline 2020 program, which aims to modernize critical pipeline infrastructure, expand the use of automatic or remotely operated shut-off valves, catalyze development of next-generation inspection technologies, develop industry-leading best practices, and enhance public

¹⁶ Pacific Gas and Electric Company, 2022, *Company profile*. https://www.pge.com/en_US/about-pge/company-information/profile/profile.page, accessed January 24, 2022.

¹⁷ Pacific Gas and Electric Company, 2022, *Company profile*. https://www.pge.com/en_US/about-pge/company-information/profile/profile.page, accessed January 24, 2022.

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safety partnerships with local communities, public officials, and first responders. Total natural gas consumption in PG&E's service area was 453,301,216,610 kilo-BTU (KBTU) for 2020.¹⁸

Peninsula Clean Energy

In 2020, the City of Los Banos joined Peninsula Clean Energy (PCE) joint-powers agency to provide electricity generated from renewable sources, such as solar, wind, biomass, bio-waste, geothermal, and hydroelectric, which was delivered to customers through PG&E transmission lines. Customers within the city are automatically enrolled in the PCE ECOplus program when they establish a new energy supply connection with PG&E.¹⁹ The PCE ECOplus program ensures that customers signed up for PG&E electricity service receive a portion of their electricity from renewable energy sources supplied by PCE, which is at least 50 percent renewable and 100 percent carbon-free.²⁰ Sources of electricity sold by PCE under the ECOplus plan in 2020, the latest year for which data are available, were:²¹

- 52 percent renewable, consisting mostly of solar and biomass/biowaste
- 47 percent large hydroelectric
- 0 percent natural gas
- 0 percent unspecified power

Customers have the option of opting up to PCE's ECO100, which provides 100 percent renewable and carbon-free electricity.²² Conversely, customers have the option to opt-out of PCE renewable energy sources and receive their energy service from PG&E. PG&E is responsible for maintaining transmission lines, handling customer billing, and responding to new service requests and emergencies.

Existing Electricity and Natural Gas Demand

The existing electricity and natural gas use demand in Los Banos is shown in Table 4.6-1, *Estimated Existing Electricity and Natural Gas Demand*.

TABLE 4.6-1 ESTIMATED EXISTING ELECTRICITY AND NATURAL GAS DEMAND

Land Use	Electricity Usage (kWh/year) ^a	Natural Gas Usage (Therms/year)
Residential	99,321,787	4,690,209
Nonresidential	42,554,951	1,005,327
Total	141,876,738	5,695,536

Note:

a. Based on energy and natural gas usage from PG&E Community Wide GHG Inventory Report for Los Banos (2005-2020).

Source: PlaceWorks. See Appendix H, *Energy Data*, of this Draft EIR.

¹⁸ California Energy Commission, 2020, Gas Consumption by Planning Area. <http://www.ecdms.energy.ca.gov/gasbyplan.aspx>, accessed May 17, 2022.

¹⁹ Peninsula Clean Energy (PCE), Energy Choices. <https://www.peninsulacleanenergy.com/energy-choices/>, accessed on May 12, 2022.

²⁰ Peninsula Clean Energy (PCE), Energy Choices. <https://www.peninsulacleanenergy.com/energy-choices/>, accessed on May 12, 2022.

²¹ Peninsula Clean Energy (PCE), Power Content Label 2020. <https://www.peninsulacleanenergy.com/wp-content/uploads/2021/09/2020-Power-Content-Label-pdf.pdf>, accessed on May 12, 2022.

²² Peninsula Clean Energy (PCE), ECO100 plan, 2021. <https://www.peninsulacleanenergy.com/faq/>, accessed on December 16, 2021.

Existing Transportation Fuels

Table 4.6-2, *Existing Operation-Related Annual Fuel Usage*, shows the fuel usage associated with vehicle miles traveled (VMT) currently generated under existing baseline conditions based on fuel usage data obtained from EMFAC2021, Version 1.0.1, and VMT data provided by Kittelson and Associates, Inc.. VMT is based on vehicle trips beginning and ending in the city boundaries and from external/internal trips (i.e., trips that either begin or end in the city).

TABLE 4.6-2 EXISTING OPERATION-RELATED ANNUAL FUEL USAGE

Gas		Diesel		Compressed Natural Gas		Electricity	
VMT ^a	Gallons	VMT ^a	Gallons	VMT ^a	Gallons	VMT ^a	kWh
415,458,921	18,388,098	97,925,363	14,663,818	650,744	101,678	5,271,848	1,840,162

Note:

a. VMTs based on daily VMT provided by Kittelson and Associates, Inc. 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 1.0.1. (See Appendix H, *Energy Data*, of this Draft EIR).

4.6.2 STANDARDS OF SIGNIFICANCE

Implementation of 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

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4.6.2.1 METHODOLOGY

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

- **Energy (Natural Gas and Electricity):** Energy use for residential and nonresidential land uses in the city were modeled using electricity and natural gas data provided by PG&E. Residential energy and nonresidential energy forecasts are adjusted for increases in housing units and employment, respectively. In 2022, Los Banos is switching to PCE.
- **On-Road Fuel Use:** Fuel use was based on Origin-Destination Method VMT provided by Kittelson (see Section 4.15, *Transportation*), and modeled using CARB's EMFAC2021 v.1.0.1 web database and calendar year 2021 (existing) and 2042 fuel usage rates.

4.6.3 IMPACT DISCUSSION

ENE-1	Implementation of 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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Short-Term Construction Impacts

Development projects constructed under the project's EIR Study Area 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 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 EIR Study Area would be similar to projects currently in development within Los Banos. 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 in other parts of California. 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.

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 additional demands for transportation fuels (e.g., gasoline, diesel, compressed natural gas, and electricity) associated with on-road vehicles.

Nontransportation Energy

Electrical service to the EIR Study Area is provided by PG&E and PCE through connections to existing off-site electrical lines and new on-site infrastructure. As shown in Table 4.6-3, *Year 2042 Forecast Electricity Consumption*, by year 2042, electricity use in Los Banos would increase by 97,632,343 kWh/year, or approximately 69 percent, from existing conditions.

TABLE 4.6-3 YEAR 2042 FORECAST ELECTRICITY CONSUMPTION

Land Use	Electricity Usage (kWh per year) ^a		
	Existing Conditions	Proposed Project	Net Change
Residential	99,321,787	168,381,467	69,059,680
Nonresidential	42,554,951	71,127,614	28,572,663
Total	141,876,73	239,509,081	97,632,343

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 H, *Energy Data*, of this Draft EIR.

As shown in Table 4.6-4, *Year 2042 Forecast Natural Gas Consumption*, natural gas use under the proposed project totals 9,674,788 therms annually. By 2042, natural gas use in the city would increase by 3,979,252 therms annually, or approximately 70 percent, from existing conditions.

TABLE 4.6-4 YEAR 2042 FORECAST NATURAL GAS CONSUMPTION

Land Use	Natural Gas Usage (Therms per year) ^a		
	Existing Conditions	Proposed Project	Net Change
Residential	4,690,209	1,723,418	-2,966,791
Nonresidential	1,005,327	7,951,370	6,946,043
Total	5,695,536	9,674,788	3,979,252

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 H, *Energy Data*, of this Draft EIR.

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While the electricity and natural gas demand for the potential future development in the project's EIR Study Area would increase compared to existing conditions, 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 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. New and replacement buildings in compliance with these standards would generally have greater energy efficiency than existing buildings. 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.

The General Plan 2042 Land Use (LU) Element and Circulation (C) Element contain goals, policies, and actions that require local planning and development decisions to address efficient use of energy and energy conservation. The following goals, policies, and actions would further limit wasteful and unnecessary energy consumption in the EIR Study Area.

- **Goal LU-1.** Provide for orderly, well-planned, and balanced development.
 - **Policy LU-P1.2.** Maintain a well-defined compact urban form, with a defined urban growth boundary and development intensities on land designated for urban uses.
 - **Policy LU-P1.3.** Require that any land requested to be annexed be contiguous with the existing city limits, within the urban growth boundary, and within the sphere of influence.
- **Goal LU-4.** Protect and enhance Los Banos' image and unique sense of place.
 - **Policy LU-P4.8.** Facilitate environmentally sensitive development practices by:
 - Exploring and promoting the use of new sustainable building materials, such as mass timber and cross-laminated timber in new development, consistent with State building codes;
 - Encouraging the purchase of locally or regionally available materials, when practical;
 - Encouraging both passive solar design features and the incorporation of solar panels or solar-readiness;
 - Promoting the use of the U.S. Green Building Council's LEED rating system; and
 - Creating Green Building Design Guidelines to be used in the development review process.
- **Goal LU-6.** Develop a vibrant, mixed-use Downtown that is the pride of the community.
 - **Action LU-A6.2.** Establish zoning, review procedures, and fees that encourage rehabilitation, renovation, preservation, and reuse of Downtown buildings with a mix of commercial, entertainment, and residential uses that promote around-the-clock activity.
- **Goal C-5.** Foster practical parking solutions.
 - **Policy C-P5.2.** Promote shared parking for mixed-use projects, passive solar on parking structures to generate energy for parking lot lighting, and pervious parking paving to improve groundwater recharge.

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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 4.6-5, *Operation-Related Annual Fuel Usage: Net Change from Existing Conditions*, shows the net change in VMT, fuel usage, and fuel efficiency of the proposed project compared to the existing conditions.

TABLE 4.6-5 OPERATION-RELATED ANNUAL FUEL USAGE: NET CHANGE FROM EXISTING CONDITIONS

Land Use	Natural Gas Usage (Therms per year) ^a		
	Existing Conditions	Proposed Project	Net Change
Gasoline			
VMT ^a	415,458,921	547,772,702	132,313,781
Gallons	18,388,098	16,805,262	1,582,836
Miles Per Gallon	22.59	32.60	10.01
Diesel			
VMT ^a	97,925,363	121,727,859	23,802,496
Gallons	14,663,818	15,564,874	901,056
Miles Per Gallon	6.68	7.82	1.14
Compressed Natural Gas			
VMT ^a	650,744	844,712	193,968
Gallons	101,678	114,457	12,779
Miles Per Gallon	6.40	7.38	0.98
Electricity			
VMT ^a	5,271,848	83,574,510	78,302,662
kWh	1,840,162	20,978,942	19,138,780
Miles Per kWh	2.86	3.98	1.12
Total VMT	519,306,876	753,919,783	234,612,907

Note:

a. Based on daily VMT provided by Kittelson. 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 1.0.1.PlaceWorks. See Appendix H, *Energy Data*, of this Draft EIR.

As shown in Table 4.6-5, implementation of the proposed project would result in an overall increase in VMT and increase in fuel usage for diesel-, compressed natural gas-, and electricity-powered vehicles. Overall, the proposed project would result in an increase in annual VMT and fuel usage for all vehicles primarily due to the projected population growth as shown in Table 4.13-5, *Regional Growth Projections, 2021 to 2042*, in Chapter 4.13, *Population and Housing*, of this Draft EIR. However, as discussed in Chapter 4.15, *Transportation*, of this Draft EIR, although VMT associated with all vehicle types would increase under 2042 buildout horizon conditions when compared to existing 2021 conditions, the VMT per service population rate (VMT/SP)²³ would decrease under the proposed project, which would increase on-road

²³ Service population is residents plus employees.

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transportation energy efficiency. A decrease in VMT/SP indicates fewer vehicle trips and/or shorter trip distances despite a growing service population in Los Banos. Factors contributing to the decrease in VMT per service population include better jobs-housing ratio.

Similarly, while total fuel usage for diesel, compressed natural gas, and electricity would increase fuel efficiency of on-road vehicles would also improve over time. 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 Los Banos 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 city more fuel-efficient vehicle options. Furthermore, while the demand in electricity would increase under the proposed project, in conjunction with the regulatory (i.e., Renewables Portfolio Standard, SB 350, and SB 100) and general trend toward increasing the supply and production of energy from renewable sources, it is anticipated that a greater share of electricity used to power electric vehicles would be from renewable sources in future years (e.g., individual photovoltaic systems, purchased electricity from PCE, and/or purchased electricity from PG&E 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 General Plan 2042 includes goals, policies, and actions previously listed that would contribute to efficient energy and fuel use. Because transportation is a leading source of energy use in Los Banos, many goals, policies, and actions in the Los Banos General Plan 2042 Circulation (C) Element also promote energy conservation from the transportation sector by increasing safe and sufficient transit, bicycle, and pedestrian facilities to reduce automobile use and VMT. In addition, the proposed goals, policies, and actions of the Los Banos General Plan 2042 Economic Development (ED) Element and Land Use (LU) Element focus on minimizing VMT through land use and transportation planning efforts that work in conjunction with one another. The following are the applicable proposed goals, policies, and actions.

- **Goal ED-1.** Help create jobs and improve job quality for existing and future Los Banos residents.
 - **Policy ED-P1.1.** Facilitate the development of new businesses and/or expansion of existing businesses through site availability, infrastructure investment, workforce preparedness, branding, and marketing.
 - **Action ED-A1.1.** Actively promote Los Banos as a good place for business through the following:
 - Continue to attend trade shows, retail conventions or other gatherings for targeted industries;
 - Regularly schedule face-to-face meetings between City representatives and leaders of key local businesses for business retention purposes;
 - Prepare effective and informative collateral materials to distribute to interested businesses;
 - Publish an inventory of assets that Los Banos offers in newsletters and on the web;
 - Create materials to keep businesses and industry groups informed of local services using electronic newsletter, postcards, and specialized promotional packages.

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- **Goal ED-2.** Seek and promote particular businesses or development projects that provide needed local goods, services, employment, or those that enhance the city's physical and social well-being and quality of life.
 - **Action ED-A2.1.** Prepare an outreach strategy for targeted industries, focusing on:
 - Industries/businesses that indicate an interest in, and/or represent a good geographical fit with the San Joaquin Valley, Merced County, and/or Los Banos;
 - Industries whose labor requirements match the occupations and skills of the local labor force and local educational institutions;
 - Businesses that rely on ground and air transportation;
 - Businesses that can add to or leverage existing industrial clusters or firms;
 - Public or private enterprises appropriate to strengthening the health/education/services sector, or those that would improve the quality of life for residents and help to attract higher-income households to Los Banos; and
 - Partnerships with area educational institutions to assist with training for a new workforce.
 - **Action ED-A2.2.** Continue to have economic development staff contact and visit target companies and industry associations, including businesses, real estate brokers, and site consultants.
 - **Action ED-A2.3.** In partnership with the Chamber of Commerce and the Merced County Economic Development Team, continuously track local, state, and national economic trends to identify new candidate businesses/industries for Los Banos.
- **Goal LU-2.** Foster neighborhoods with exceptional amenities and design, broad-based opportunity, and a shared sense of identity.
 - **Policy LU-P2.11.** Locate a diverse range of civic, institutional, and community land uses in close proximity to neighborhoods, where feasible.
 - **Policy LU-P2.15.** Permit childcare centers in all districts, subject to appropriate permitting requirements, and develop criteria for incentives for childcare facilities, including density bonuses according to State law.
- **Goal LU-5.** Provide residents with excellent employment and shopping opportunities.
 - **Policy LU-P5.2.** Allow flexible planning for larger-scale employment-generating businesses, technology-based businesses, light industrial, professional offices, and other businesses wishing to locate in Los Banos.
 - **Policy LU-P5.3.** Locate regionally oriented commercial uses on major roadway corridors. Locate community and neighborhood-oriented uses within planned communities and neighborhoods.
 - **Policy LU-P5.6.** Evenly distribute neighborhood retail centers in new development areas and encourage a mix of uses to offer both choice and convenience for shoppers and residents.
 - **Policy LU-P5.7.** Encourage existing neighborhood centers to expand to their maximum potential through reuse, rehabilitation, and infill development.

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- **Goal C-1.** Promote safe and efficient vehicular circulation for all modes and users.
 - **Policy C-P1.3.** Provide for greater street connectivity by:
 - Incorporating in subdivision regulations requirements for a minimum number of access points to existing collector streets or neighborhood streets for each development;
 - Encouraging traffic circles and roundabouts over signals where feasible;
 - Requiring bicycle and pedestrian connections from cul-de-sacs to nearby public areas and main streets; and
 - Requiring new residential communities on undeveloped land planned for urban uses to provide stubs for future connections to the edge of the property line. Where stubs exist on adjacent properties, new streets within the development shall connect to these stubs.
- **Goal C-2.** Make efficient use of existing transportation facilities and, through coordinated land use planning, strive to improve accessibility to shops, schools, parks, and employment centers for all users, and reduce total vehicle miles traveled per household to minimize vehicle emissions and save energy.
 - **Policy C-P2.5.** Achieve State-mandated reductions in vehicle miles traveled (VMT) by requiring development and transportation projects to meet specific VMT metrics. In the event a proposed project does not meet these metrics, require measures to reduce the additional VMT associated with the project, consistent with City's adopted thresholds.
 - **Policy C-P2.6.** Reduce vehicle miles traveled (VMT) through measures such as improvements to public transportation and carpooling and offering safe routes for pedestrians and bicyclists.
 - **Policy C-P2.8.** Promote and encourage carpool, vanpool, and guaranteed ride home with employers to discourage single occupancy vehicles while encouraging alternative modes of transportation such as carpooling.
 - **Action C-A2.1:** Participate in regional efforts to develop guidelines for calculating the projected VMT associated with future development projects and transportation improvements. The guidelines also should cover administration, screening criteria, and appropriate Transportation Demand Management measures and monitoring procedures. All VMT metrics should be routinely reassessed and revised as needed to reflect changing conditions.
- **Goal C-3.** Provide a wide variety of transportation alternatives and modes to serve all residents and businesses to enhance the quality of life.
 - **Policy C-P3.2.** Work with Merced County Transit to situate transit stops and hubs at locations that are convenient for transit users and promote increased transit ridership through the provision of shelters, benches, bike racks on buses, and other amenities.
 - **Policy C-P3.3.** Ensure that new development is designed to make transit a viable choice for residents. Design options include:
 - Have neighborhood focal points with sheltered bus stops;
 - Locate medium- to high-density development near streets served by transit; and
 - Link neighborhoods to bus stops by continuous sidewalks or pedestrian paths.

- **Action C-A3.1.** Develop a multi-modal transit system map integrating bicycle, public transportation, pedestrian, and vehicle linkages within the city to ensure circulation gaps are being met.
- **Goal C-4.** Promote bicycling and walking as alternatives to the automobile.
 - **Policy C-P4.1:** Develop bicycle lanes, routes, and paths consistent with the Los Banos Bicycle-Pedestrian Plan.
 - **Policy C-P4.6:** Provide for pedestrian-friendly zones in conjunction with the development, redevelopment, and design of mixed-use neighborhood core areas, the Downtown area, schools, parks, and other high-use areas by:
 - Providing intersection “bump outs” to reduce walking distances across streets in the Downtown and other high-use areas;
 - Providing crosswalks at all signalized intersections;
 - Providing landscaping that encourages pedestrian use; and
 - Constructing adequately lit and safe access through subdivision sites.
- **Goal C-7.** Provide a safe and accessible multimodal circulation network for disadvantaged communities that improves health and reduces pollution exposure.
 - **Policy C-P7.1.** In capital projects and planning documents, prioritize the implementation of street safety projects in disadvantaged communities.
 - **Policy C-P7.2:** Support improvements to bikeways and sidewalks in disadvantaged communities to make active transportation more accessible, user-friendly, and safer, while decreasing vehicle speeds, congestion, and air pollution.
 - **Policy C-P7.4.** Work with local transit providers to establish and maintain routes and services, including accessible transit services, that provide disadvantaged communities with convenient access to employment centers, shopping, healthy food outlets, and services. Support extended hours of transit service to serve shift workers.
 - **Policy C-P7.5.** Provide convenient ways for residents to notify the City when transit shelters and benches or other seating at transit stops in disadvantaged communities are not in a state of good repair, especially along commercial corridors and near high-density and medium-density housing. The City will relay this information to Merced County Transit.

Collectively, the goals, policies, and actions listed previously would minimize overall VMT, and thus fuel usage associated with potential future development in Los Banos. Furthermore, development would likely occur in the form of infill development on urbanized sites in the surrounding cities and Los Banos region, thus contributing to reduced energy use from the transportation sector. 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.

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Summary

Overall, compliance with federal, state, and local regulations (e.g., Building Energy Efficiency Standards, CALGreen, Renewables Portfolio Standard, 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, policies, and actions 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.

Significance without Mitigation: Less than significant.

ENE-2	Implementation of the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.
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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 100 percent by 2045 (SB 100). SB 100 also establishes RPS requirements for publicly owned utilities that consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. The statewide RPS requirements do not directly apply to individual development projects, but to utilities and energy providers such as PG&E, whose compliance with RPS requirements would contribute to the State of California objective of transitioning to renewable energy. In addition, customers are automatically enrolled in the PCE ECOplus program, which uses at least 50 percent renewable energy and 100 percent carbon-free service. Even if customers in the EIR Study Area were to opt-out of the ECOplus program, and therefore receive all their electricity from PG&E, 33 percent of PG&E's electricity is generated from renewable energy since 2017.²⁴ By 2030, PG&E is set to meet the State's new 60 percent renewable energy mandate set forth in SB 100.

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 Los Banos General Plan 2042 includes Economic Development, Land Use, and Circulation Element goals, policies, and actions, which would support the statewide goal of

²⁴ Pacific Gas and Electric Company (PG&E), Renewable Energy, https://www.pgecorp.com/corp_responsibility/reports/2018/bu07_renewable_energy.html#:~:text=PG%26E%20delivers%20some%20of%20the,and%20various%20forms%20of%20bioenergy, accessed May 16, 2022.

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transitioning the electricity grid to renewable sources. The net increase in energy demand associated with implementation of the proposed project would be within the service capabilities of PCE and PG&E and would not impede their ability to implement California's renewable energy goals. 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* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

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 EIR Study Area are within the service area of PCE and PG&E. 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 PCE and PG&E service area would implement the requirements of the Building and Energy Efficiency Standards (California Code of Regulations, Title 24, Part 6) and the California Green Building Code (California Code of Regulations, Title 24, Part 11). Furthermore, new buildings would use new energy-efficient appliances and equipment, pursuant to the Appliance Efficiency Regulations.

Future development would also increase annual fuel consumption and VMT. However, 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 goals, policies, and actions that would contribute toward minimizing inefficient, wasteful, or unnecessary transportation energy consumption. These goals, policies, and actions, as well as the other Economic Development and Land Use Element goals, policies, and actions 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* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

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4.7 GEOLOGY AND SOILS

This chapter describes the potential geology and soils impacts associated with the adoption and implementation of the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential geology and soils impacts, and identifies General Plan policies that could minimize any potentially significant impacts.

4.7.1 ENVIRONMENTAL SETTING

4.7.1.1 REGULATORY FRAMEWORK

Federal Regulations

Paleontological Resources Preservation Act

The federal Paleontological Resources Preservation Act of 2002 limits the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers who have obtained a permit from the appropriate state or federal agency. Additionally, it specifies these researchers must agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers. This act incorporates key findings of a report, *Fossils on Federal Land and Indian Lands*, issued by the Secretary of Interior in 2000, which establishes that most vertebrate fossils and some invertebrate and plant fossils are considered rare resources.¹

State Regulations

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface fault rupture to structures used for human occupancy.² The main purpose of this act is to prevent the construction of buildings used for human occupancy on top of active faults. This act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards, such as earthquake-induced liquefaction or landslides.³ This act requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Zones) around surface traces of active faults, and to

¹ U.S. Department of the Interior, May 2000, *Fossils on Federal & Indian Lands, Report of the Secretary of the Interior*, May 2000.

https://www.blm.gov/sites/blm.gov/files/programs_paleontology_quick%20links_Assessment%20of%20Fossil%20Management%20on%20Federal%20%26%20Indian%20Lands%2C%20May%202000.pdf, accessed on January 31, 2022.

² California Geological Survey, Alquist-Priolo Earthquake Fault Zoning Act, <https://www.conservation.ca.gov/cgs/alquist-priolo>, accessed on January 31, 2022.

³ California Geological Survey, Alquist-Priolo Earthquake Fault Zoning Act, <https://www.conservation.ca.gov/cgs/alquist-priolo>, accessed on January 31, 2022.

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issue appropriate maps.⁴ The maps, which are developed using existing United States Geological Survey's (USGS) 7.5-minute quadrangle map bases, are then distributed to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. Generally, construction within 50 feet of an active fault zone is prohibited.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act, which was passed in 1990, addresses seismic hazards such as liquefaction and seismically induced landslides.⁵ Under this act, seismic hazard zones are mapped by the State Geologist to assist local governments in land use planning. Section 2691(c) of this act states that "it is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety." Section 2697(a) of the act states that "cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard."

California Building Code

The State of California provides a minimum standard for building design through Title 24 of the California Code of Regulations (CCR), commonly referred to as the California Building Code (CBC). The CBC is in Part 2 of Title 24. The CBC is updated every three years. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Through the CBC, the State provides a minimum standard to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. They also regulate grading activities, including drainage and erosion control.

California Environmental Quality Act

Paleontological resources are afforded protection under the California Environmental Quality Act (CEQA). The Society of Vertebrate Paleontology has set significance criteria for paleontological resources.⁶ Most practicing professional vertebrate paleontologists adhere closely to the Society of Vertebrate Paleontology's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most State regulatory agencies with paleontological laws, ordinances, regulations, and standards accept and use the professional standards set forth by the Society of Vertebrate Paleontology.

⁴ California Geological Survey, Alquist-Priolo Earthquake Fault Zoning Act, <https://www.conservation.ca.gov/cgs/alquist-priolo>, accessed on January 31, 2022.

⁵ California Geological Survey, Alquist-Priolo Earthquake Fault Zoning Act, <https://www.conservation.ca.gov/cgs/alquist-priolo>, accessed on January 31, 2022.

⁶ Society of Vertebrate Paleontology, 2010, *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*. Society of Vertebrate Paleontology. Impact Mitigation Guidelines Revision Committee.

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California Public Resources Code Section 5097

California Public Resources Code (PRC) Section 5097.5 prohibits the destruction or removal of any paleontological site or feature from public lands without the permission of the jurisdictional agency.

California Penal Code Section 622.5

The California Penal Code Section 622.5 details the penalties for damage or removal of paleontological resources, whether from private or public lands.

Regional Regulations

Merced County Medical/Health Emergency Operations Plan

The *Merced County Medical/Health Emergency Operations Plan* (EOP) is the foundation for disaster response and recovery operations for Merced County and outlines how the County complies with and implements the requirements of the California Emergency Services Act to protect the lives and property within Merced County. The Merced County EOP establishes the emergency organization, specifies policies and general procedures, and provides for coordination of the responsibilities of the County departments in all phases of an emergency or disaster. The Merced County EOP provides an overview of the Emergency Operations Center and outlines the various modes of activation of the EOP. Most provisions related to geology, soils, and seismic events are in the Management Section of the EOP.

Merced County Multi-Jurisdictional Hazard Mitigation Plan

The Merced County Office of Emergency Services, together with several jurisdictions in Merced County, including the City of Los Banos, prepared the *Multi-jurisdictional Hazard Mitigation Plan* (MJHMP). The MJHMP was prepared in accordance with the Disaster Mitigation Act of 2000 and followed the Federal Emergency Management Agency (FEMA) 2011 Local Hazard Mitigation Plan guidance. The MJHMP, adopted in 2014, includes hazard mitigation goals, strategies, and priorities, and provides a comprehensive assessment of the area's hazards and vulnerabilities. The MJHMP is a guide to hazard mitigation throughout Merced County and serves as a tool to help decision makers direct hazard mitigation activities and resources. In the context of the MJHMP, mitigation is an action that reduces or eliminates long-term risk to people and property from hazards, including those occurring naturally, such as earthquakes, and those caused by humans as well.

The County released a draft update to the MJHMP in 2021 (herein referred to as the "2021 Draft MJHMP"). The hazard mitigation plan for Los Banos is Annex E of the 2021 Draft MJHMP and includes a section on earthquake hazards and mitigating actions for Los Banos. A description of the mitigation actions for earthquakes include the following.⁷

⁷ Merced County, 2021, *Merced County Hazard Mitigation Plan Update 2021-2026, Annex E: City of Los Banos*, https://web2.co.merced.ca.us/pdfs/oes/AnnexE_CityOfLosBanos_DRAFT_9-24-21.pdf, accessed January 25, 2022.

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- **Participate in Countywide Public Education Program.** A natural hazards education and awareness program in Merced County would be a valuable tool for sharing information with residents. Implementation ideas include sharing information online and conducting workshops. The county will partner with special districts, the cities, and other entities to provide awareness and education on hazards and steps to mitigate.
- **Integrate Local Hazard Mitigation Plan into Safety Element of General Plan.** Recognizing the potential duplication of effort over evaluation of the same issues, efforts to update the Health and Safety Element will be conducted in coordination with the multi-hazard mitigation plan and to also ensure AB 2140 compliance. Integration and coordination of both plans provides General Plan policy direction for development activity. Potential loss reductions in the \$1,000s as any new development within the county will be considered within the context of the county's Health and Safety Element.
- **Non-structural Earthquake Mitigation Outreach.** Existing structures can be retrofitted to better withstand damage from seismic events. Outreach will include educating home and business owners about structural and nonstructural retrofit techniques and how to seismically strengthen their homes and businesses. Specific techniques include secure furnishings, storage cabinets and utilities to prevent injuries and damages, such as anchoring, installing lathes, using flexible connections on gas and water lines, and bracing propane tanks and water heaters.
- **Participate in countywide Inventory for Unreinforced Masonry (URM) Buildings.** Use geographic information system (GIS) data to map and track URM countywide. An accurate inventory of URM buildings with appropriate tracking will lessen time during the recovery after an earthquake.
- **Review Building Codes.** Periodically review building codes for updates and enhancements and ensure necessary capabilities for enforcement.

Local Regulations

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives pertaining to geology and soils. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions related to geology, soils, and seismic events are included in Title 6, *Sanitation and Health*; Title 8, *Building Regulations*; and Title 9, *Planning and Zoning*, as follows.

- **Chapter 5, *Sewer Systems*.** Section 6-5.02, *Use of Public Sewers Required: Exceptions*, identifies the regulations for the provision of septic tanks or other similar private wastewater disposal system. The City requires all existing buildings to connect to a public sewer when readably available. When connections to a sewer is not feasible, applicants who must use a septic tank for sewage disposal are required to submit detailed plans that show compliance with the code to reduce the risk of groundwater pollution via septic leaching.
- **Chapter 13, *Los Banos Urban Storm Water Management and Discharge Control*.** Section 6-13.1010, *Title and Purpose*, states that the purpose and intent of this chapter is to protect and enhance the water quality of watercourses and water bodies from erosion and other sources of contamination. Sections in this chapter require applicants to comply with National Pollution Discharge Elimination System (NPDES) Permit to control and monitor erosion and loss of soil.

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- **Chapter 1, *Building Codes*.** Section 8-1.01, *Adoption of the California Building Code 2019 Edition*, adopts the CBC in its entirety, subject, however, to the amendments, additions, and deletions set forth in this chapter. The purpose of the CBC is to prescribe regulations governing the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area, and maintenance of all buildings and structures within the city. By regulating the design and construction of excavations, foundations, building frames, retaining walls, and other structures, the City's Building Code provides protections during the design, permitting, and construction of structures intended for human occupancy.
- **Chapter 6, *City of Los Banos Water Efficient Landscape Ordinance*.** Section 9-6.03.08, *Grading Design Plan*, sets forth the requirements for the submittal of grading plans that demonstrate that the project has been designed to minimize soil erosion.

4.7.1.2 EXISTING CONDITIONS

Geology

Los Banos is in the San Joaquin Valley, which is in the greater Central Valley. The San Joaquin Valley is in the southern half of the Great Valley Geomorphic Province. The Great Valley Geomorphic Province is a long, narrow northwest-trending alluvial valley that lies between the Sierra Nevada to the east and the Coast Ranges to the west.⁸ Formed during the late Mesozoic period (208 to 65 million years ago), the valley was originally part of the ocean floor. The subduction of the Proto-Pacific plate beneath the North American plate, and subsequent uplift of the coastal ranges in the Cenozoic Period (65 to 2 million years ago), caused an extraordinarily flat area to be enclosed by mountain ranges. Marine conditions existed in the valley for millions of years until further tectonic movements and climate change gradually drained the area of water. The Diablo Range of the Coast Ranges is about 20 miles west of the EIR Study Area. This is the closest mountain range to Los Banos. The EIR Study Area is mainly flat, underlain with sediments from alluvial deposits, as well as non-marine sedimentary rocks. Valley sediments in the EIR Study Area range from Jurassic to Holocene in age and record a history of alternating marine and terrestrial depositional environments.^{9, 10}

Soils

The San Joaquin Valley is a region renowned for its fertile soils as a result of thick marine and non-marine deposits from millions of years ago. Los Banos is relatively flat, gently sloping toward the northeast, toward the San Joaquin River. Soils in the EIR Study Area primarily consist of alluvial soils. Alluvial soils are characterized by complex layering of gravel, silty sands, sand, and clayey soils. The predominant soil types

⁸ California Geological Survey, 2002, California Geomorphic Provinces, <https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf>, accessed January 31, 2022.

⁹ Rogers, T. H., 1966, Geologic Map of California, San Jose Sheet, scale 1:250,000, <http://archives.csuchico.edu/digital/collection/coll19/id/326>, accessed January 31, 2022.

¹⁰ Miller, R. E., J. H. Green, and G. H. Davis, 1971, Geology of the Compacting Deposits in the Los Banos-Kettleman City Subsidence Area, California, U. S. Geological Survey Professional Paper 497-E, <https://pubs.usgs.gov/pp/0497e/report.pdf>, accessed January 31, 2022.

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in Los Banos include loams and clays of the Woo, Stanislaus, Dosamigos, Capay, Henmel, and Pedcat associations.¹¹

Regional Seismicity

The Earth's crust includes tectonic plates that locally collide with or slide past one another along plate boundaries. California is particularly susceptible to such plate movements, notably the largely horizontal or "strike-slip" movements of the Pacific Plate, as it impinges on the North American Plate. In general, earthquakes occur when the accumulated stress along a plate boundary or fault is suddenly released, resulting in seismic slippage. This slippage can vary widely in magnitude, ranging in scale from a few millimeters or centimeters to tens of feet.

The performance of human-made structures during a major seismic event varies widely due to a number of factors, including:

- Location, with respect to active fault traces or areas prone to liquefaction or seismically-induced landslides;
- Type of building construction (i.e., wood frame, unreinforced masonry, non-ductile concrete frame);
- Proximity, magnitude, depth, and intensity of the seismic event itself as well as many other factors.

In general, evidence from past earthquakes shows that wood-frame structures tend to perform well during a seismic event, especially when their foundations are properly designed and anchored. Conversely, older, unreinforced masonry structures and non-ductile reinforced concrete buildings (especially those built in the 1960s and early 1970s), do not perform as well, especially if they have not undergone appropriate seismic retrofitting. Applicable building code requirements, such as those found in the CBC, include seismic requirements that are designed to ensure the satisfactory performance of building materials under prescribed seismic conditions.

The Richter Scale is used to describe the magnitude of an earthquake. Each one-point increase in magnitude (M) represents a 10-fold increase in earthquake wave size and a 30-fold increase in energy release (strength). For example, an M8 earthquake produces 10 times the ground motion amplitude of an M7 earthquake, 100 times that of an M6 quake, and 1,000 times the motion of a M5 earthquake. However, the M8 earthquake is 27,000 times stronger than an M5 quake. Typically, earthquakes of M5 or greater are considered strong earthquakes capable of producing damage.

Seismic activity in the nearby Coast Ranges is generally associated with active faults of the San Andreas system, which includes major active faults. Over the width of the San Francisco Bay region, approximately 1.5 inches per year of relative horizontal movement occurs between the North American and Pacific Plates. This movement is partially accommodated by earthquakes and creep along several active faults. Locations of these active faults relative to Los Banos are shown on Figure 4.7-1, *Regional Fault Map*.

¹¹ U.S. Department of Agriculture Soil Conservation Service, 1990, Soil Survey of Merced County, Western Part, https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA647/0/merced.pdf, accessed January 31, 2022.

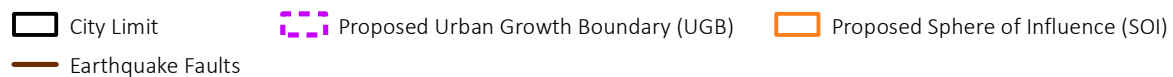
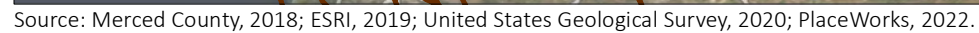


Figure 4.7-1
Regional Faults

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Table 4.7-1, *Distances and Directions to Active Faults*, provides a summary of the key faults that could produce significant earthquakes (exceeding M5) that could impact Los Banos. The table also includes the maximum associated magnitudes of earthquakes along each fault. Due to the proximity of active fault lines, Los Banos is historically susceptible to earthquake-related hazards, which include ground shaking and liquefaction.

TABLE 4.7-1 DISTANCES AND DIRECTIONS TO ACTIVE FAULTS

Fault	Approx. Distance and Direction from Site	Fault Length (miles)	Maximum Magnitude	Slip Rate (mm/yr)
Great Valley	1 mile southwest	280	6.6	1.5
O'Neill	4 miles southwest	27	Unspecified	Unspecified
Tesla-Ortogonalita	8 miles west	44	6.9	1.0
Quien Sabe	24 miles southwest	15	6.4	1.0
Calaveras	28 miles southwest	76	7.0	15
Sargent	30 miles southwest	34	6.8	5
San Andreas	31 miles southwest	800	8.3	34
Zayante-Vergeles	34 miles southwest	54	6.8	0.1
Greenville	43 miles northwest	34	6.9	2.0
Monte Vista-Shannon	46 miles northwest	29	6.8	0.4
Hayward	47 miles northwest	74	7.5	9
Reliz-Rinconada	49 miles southwest	124	7.3	1.0

Note: Distances are approximate; mm/yr = millimeters per year

Source: Cao, T., W. A. Bryant, B. Rowshandel, D. Branum, and C. J. Wills, 2003, *The Revised 2002 California Probabilistic Seismic Hazard Maps*, June 2003, <https://www.conservation.ca.gov/cgs/Documents/PSHA/2002%20California%20Hazard%20Maps.pdf>, accessed January 31, 2022.

Landslides

Landslides are gravity-driven movements of earth materials that can include rock, soil, unconsolidated sediment, or combinations of such materials. The rate of landslide movement can vary; some move rapidly, as in a soil or rock avalanche, while other landslides creep or move slowly for long periods of time. The susceptibility of a given area to landslides depends on many variables, although the general characteristics that influence landslide hazards are widely acknowledged. Some important factors are:

- **Slope Material.** Loose, unconsolidated soils and soft, weak rocks are more hazardous than are firm, consolidated soils or hard bedrock.
- **Slope Steepness.** Most landslides occur on moderate to steep slopes.
- **Structure and Physical Properties of Materials.** This includes the orientation of layering and zones of weakness relative to slope direction.
- **Water Content.** Increased water content increases landslide hazard by decreasing friction and adding weight to the materials on a slope.
- **Vegetation Coverage.** Abundant vegetation with deep roots promotes slope stability.

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- **Proximity to Areas of Erosion or Human-made Cuts.** Undercutting slopes can greatly increase landslide potential.
- **Earthquake Ground Motions.** Strong seismic ground motions can trigger landslides in marginally stable slopes or loosen slope materials, and also increase the risk of future landslides.

The EIR Study Area is mostly flat and does not contain areas susceptible to landslides.

Liquefaction and Related Ground Failure

Liquefaction refers to loose, saturated sand or gravel deposits that lose their load-supporting capability when subjected to intense shaking. Liquefaction potential varies based on three main contributing factors: (1) cohesionless, granular soils having relatively low densities (usually of Holocene age); (2) shallow groundwater (generally less than 50 feet); and (3) moderate to high seismic ground shaking. Cohesionless and granular soils are sand or gravel, typically with little or no clay content. Soil liquefaction generally occurs in submerged granular soils and non-plastic silts during or after strong ground shaking.

The Seismic Hazards Mapping Act (1990) directed the State Geologist to delineate regulatory “zones of required investigation” to reduce the threat to public health and safety and to minimize the loss of life and property posed by earthquake-triggered ground failures. Zones of required investigation, referred to as Seismic Hazard Zones in CCR Article 10, Section 3722, are areas shown on Seismic Hazard Zone Maps where site investigations are required to determine the need for mitigation of potential liquefaction and/or earthquake-induced landslide ground displacements.

Lateral spreading involves lateral ground movements caused by seismic shaking. These lateral ground movements are often associated with a weakening or failure of an embankment or soil mass overlying a layer of liquefied sands or weak soils. Shallow groundwater, liquefiable, cohesionless soils, and the presence of a free-face, such as a stream bank, are all contributing factors in determining the likelihood of lateral spreading.

Erosion

Erosion occurs when the upper layers of soil are displaced by erosive agents such as water, ice, snow, air, plants, animals, or anthropogenic forces. Sandy soils on moderate slopes, or clayey soils on steep slopes are susceptible to erosion when exposed to these forces. Erosion can become more frequent when established

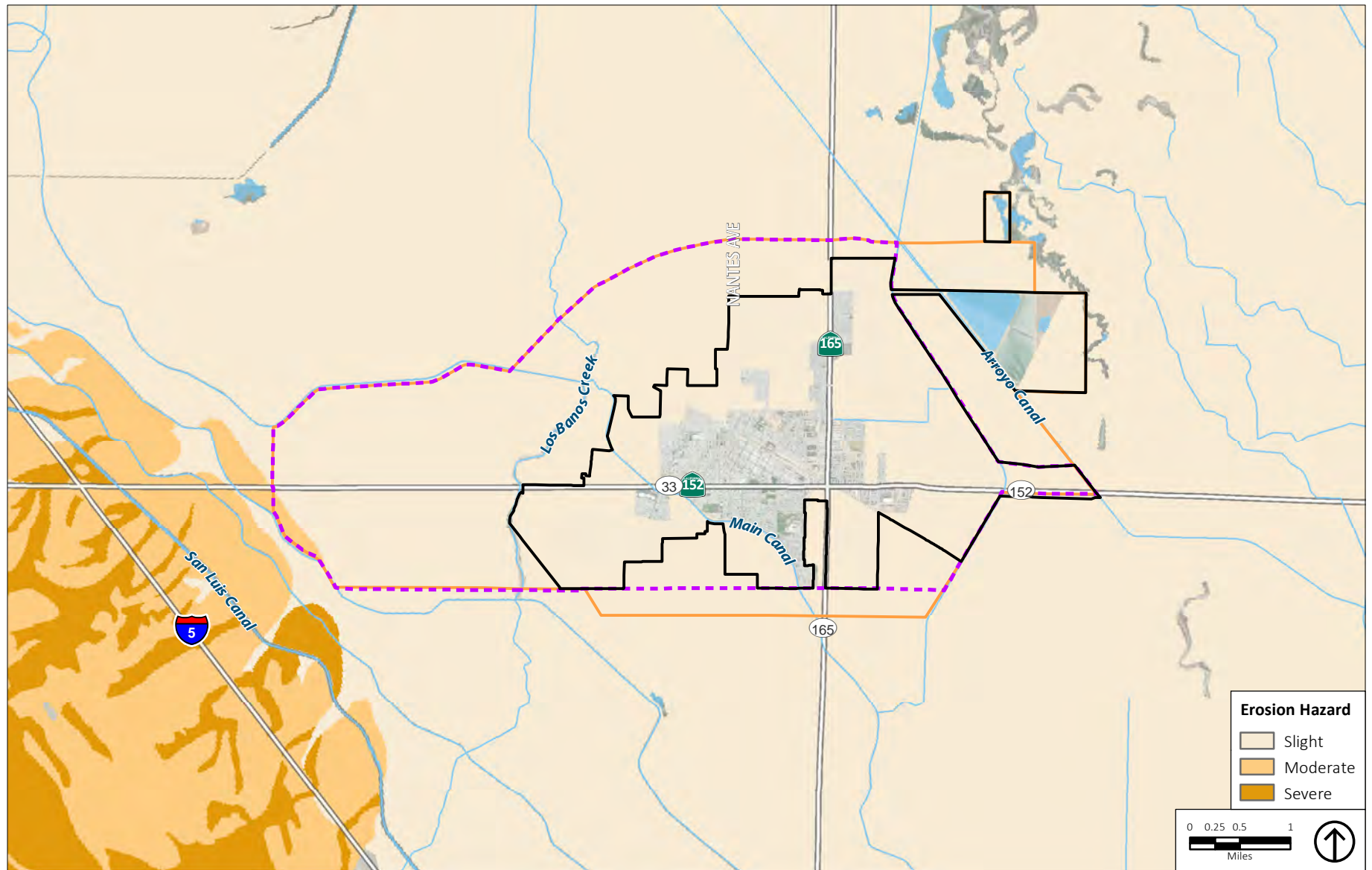
vegetation is disturbed or removed due to grading, wildfires, or other factors. Within the valley areas of the EIR Study Area, water flow in streams is generally lazy and erosion is nearly imperceptible. With a greater slope gradient, erosion can cause the soil underneath buildings and structures to become compromised or fail, which is typically limited to localized areas. Table 4.7-2, *Erosion Susceptibility*, summarizes erosion susceptibility in the EIR Study Area. Figure 4.7-2, *Erosion Hazards*, illustrates erosion susceptibility, which shows that most of the EIR Study Area contains soil with slight erosion susceptibility.

TABLE 4.7-2 EROSION SUSCEPTIBILITY

Category	Acres
Slight	12,259
Moderate	61

Source: United States Department of Agriculture, Natural Resources Conservation Service Web Soil Survey, 2022.

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Source: National Resource Conservation Service, 2021; PlaceWorks, 2022.

City Limit Proposed Urban Growth Boundary (UGB) Proposed Sphere of Influence (SOI)

Figure 4.7-2
Erosion Hazards

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The risk of erosion is greatly increased during grading and construction activities when soils are loosened and bare of vegetation. Erosion-control measures prevent downstream sedimentation and surface water degradation.

Subsidence

Subsidence in Los Banos is recognized as a geologic hazard. Subsidence is the gradual sinking of the ground as a result of loss of subsurface materials, with little or no horizontal motion. It is often accompanied by large-scale ground cracking, and in some cases, the cracking has movement across it, making it into incipient faulting.

Ground cracking from subsidence in the future would be expected to occur along the boundaries of groundwater basins, such as a contact between alluvium and bedrock, or over prominent geologic structures, i.e., faults.

Subsidence of the ground surface has been reported in alluvial basins where significant amounts of groundwater (often in an overdraft condition) or petroleum are withdrawn over long periods. The primary cause of non-tectonic subsidence has been the alluvial compaction by closing of porosity due to removal of large quantities of groundwater or petroleum and a significant lowering of the groundwater levels. Shifts in the water table or loss of groundwater are major causes.

Subsidence may occur over a small or large area depending on the amount of subsurface movement. Subsidence can also be caused by excavation work, hydrocompaction, or oxidation of organic soils. On rare occasions, subsidence may occur due to earthquake-induced ground movement.

Expansive/Shrink-Swell Soils

Expansive soils can change dramatically in volume depending on moisture content. When wet, these soils can expand; conversely, when dry, they can contract or shrink. Sources of moisture that can trigger this shrink-swell phenomenon can include seasonal rainfall, landscape irrigation, utility leakage, and/or perched groundwater. Expansive soil can exhibit wide cracks in the dry season, and changes in soil volume have the potential to damage concrete slabs, foundations, and pavement. Special building/structure design or soil treatment are often needed in areas with expansive soils.

Expansive soils are typically very fine-grained with a high to very high percentage of clay, typically montmorillonite, smectite, or bentonite clay. Linear extensibility soil tests are often used to identify expansive soils, wherein soil sample volume/length changes in response to reduced moisture content.¹² A linear extensibility of 3 percent or greater connotes moderate to high shrink-swell potential. This soil behavior has the potential to cause damage to buildings, roads, and other structures.

The most common soil types found within the EIR Study Area are Woo, Stanislaus, Dosamigos, Capay, Henmel, and Pedcat associations. All of these soil types except Woo are expansive.

¹² US Army Corps of Engineers Field Manual TM 5-818-7, 1985, http://armypubs.army.mil/eng/DR_pubs/dr_a/pdf/tm5_818_7.pdf, accessed on May 7, 2019.

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Paleontological Resources

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. These are valued for the information they yield about the history of the Earth and its past ecological settings. There are two types of resources: vertebrate and invertebrate. These resources are found in geologic strata conducive to their preservation, typically sedimentary formations. Paleontological sites are areas that show evidence of prehuman activity. Often, they are simply small outcrops visible on the surface or sites encountered during grading. While the sites are important indications, it is the geologic formations that are the most important, since they may contain important fossils. Potentially sensitive areas for the presence of paleontological resources are based on the underlying geologic formation. Marine conditions existed in the Central Valley, including the San Joaquin Valley, for millions of years until further tectonic movements and climate change gradually drained the area of water. Accordingly, the EIR Study Area is an area filled with fertile sediments as a result of marine and terrestrial deposits from millions of years ago. Based on this and the alluvium of the EIR Study Area, it is likely that paleontological resources would be found within the EIR Study Area.

Unique Geologic Features

Unique geologic features are those that are unique to the field of geology. Each rock unit tells a story of the natural processes operating at the time it was formed. The rocks and geologic formations exposed at the earth's surface or revealed by drilling and excavation are our only record of that geologic history. What makes a geologic unit or feature unique can vary considerably. For example, a geologic feature may be considered unique if it is the best example of its kind and has distinctive characteristics of a geologic principle that is exclusive locally or regionally, is a key piece of geologic information important to geologic history, contains a mineral that is not known to occur elsewhere in the area, or is used as a teaching tool. Unique geological features are not common in Los Banos or the EIR Study Area. The geologic processes are generally the same as those in other parts of the state, country, and even the world. The previously described geology and soils in the EIR Study Area are common throughout the city and region and are not considered unique.

4.7.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in significant geology and soils impacts if it would:

1. 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; (ii) Strong seismic ground shaking; (iii) Seismic-related ground failure, including liquefaction; (iv) Landslides, mudslides, or other similar hazards.
2. Result in substantial soil erosion or the loss of topsoil.
3. 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.

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4. Be located on expansive soil, as defined by Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
5. 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.
6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
7. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to geology and soils.

4.7.3 IMPACT DISCUSSION

GEO-1	Implementation of the proposed project would not 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; (ii) Strong seismic ground shaking; (iii) Seismic-related ground failure, including liquefaction; (iv) Landslides, mudslides, or other similar hazards.
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The location and underlying geology in the EIR Study Area make it likely to experience seismic hazards, including strong seismic ground shaking, and secondary hazards, like liquefaction.

Earthquake Faults

As stated in Section 4.7.1.2, *Existing Conditions*, no active surface faults are mapped and zoned under the Alquist-Priolo Zoning Act in the EIR Study Area. Therefore, it would not experience surface rupture in the event of an earthquake.

Strong Seismic Ground Shaking

Ground shaking is responsible for most of the damage from earthquakes and can damage or destroy buildings, structures, pipelines, and infrastructure. The intensity of shaking depends on the type of fault, distance to the epicenter, magnitude of the earthquake, and subsurface geology. The Great Valley, Ortigalita, and San Andreas Faults west and southwest of the city are potentially capable of producing the most intense ground accelerations. The seismic design of buildings within the EIR Study Area is governed by the requirements of the most recent CBC. The CBC has been accepted as the basic design standard in Los Banos. All structures that would be constructed pursuant to the proposed project would be designed to meet or exceed current design standards in the latest CBC. Therefore, new structures are expected to remain standing, but may suffer damage requiring closure and replacement. These project design measures would reduce the exposure of people and structures to harm from strong ground-shaking hazards such that there would not be a significant impact.

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Seismic-Related Ground Failure

Secondary effects of earthquakes are nontectonic processes such as ground deformation, including fissures, settlement, displacement, and loss of bearing strength, and are the leading causes of damage to structures during a moderate to large earthquake. Secondary effects could lead to ground deformation, including liquefaction, lateral spreading, seismically induced landslides, and ground lurching.

Based on the potential for strong ground shaking, combined with a groundwater depth of under 50 feet in parts of the EIR Study Area, much of the city is within an area susceptible to liquefaction. All potential future structures constructed in the EIR Study Area would be designed in accordance with current seismic design standards as found in the CBC. Design measures would be implemented according to the most recent CBC, which would reduce the impact of liquefaction and seismic settlement, including, but not limited to, ground improvement techniques such as in-situ densification, load transfer to underlying nonliquefiable bearing layers, and over-excavation and recompaction with engineered fill method. These design measures would reduce the potential exposure of people and structures to the hazard from liquefaction and seismic settlement such that there would not be a significant impact.

Landslides

Marginally stable slopes (including existing landslides) may be subject to landslides caused by earthquakes. The landslide hazard depends on many factors, including existing slope stability, shaking potential, and presence of existing landslides. Landslides, debris flows, or any movement of earth or rock are most common in areas of high topographic relief, such as steep canyon walls or steep hillsides. There are no substantial hazards with respect to slope stability, as the EIR Study Area is mostly flat. There would not be a significant impact from slope stability.

Summary

The proposed Los Banos General Plan 2042 Safety and Noise (S) Element contains goals and policies that require local planning and development decisions to consider potential impacts to the risk of loss, injury, or death as a result of earthquakes. The following goals and policies, once adopted, would serve to minimize potential adverse impacts from earthquakes.

- **Goal S-1.** Minimize risks of property damage and personal injury posed by seismic hazards, soil hazards, and erosion.
 - **Policy S-P1.1.** Review proposed development sites at the earliest stage of the planning process to locate any potential geologic or seismic hazards.
 - **Policy S-P1.2.** Require mitigation for buildings that change occupancy or use that require a permit for structural alterations, especially unreinforced masonry buildings, to ensure structural safety.
 - **Policy S-P1.3.** Require utilities be designed to withstand probable seismic forces to be encountered in Los Banos.
 - **Policy S-P1.4.** Require preparation of a soils report as part of the development review and/or building permit process.

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- **Policy S-P1.7.** Require that alterations to existing buildings and all new buildings be built according to the seismic requirements of the current California Building Code.
- **Policy S-P1.8.** Establish location standards and inspection requirements for aboveground storage tanks to minimize potential risks to life and property.
- **Goal S-4.** Protect Los Banos' residents and businesses from potential wildfire and structural fire hazards through data-driven decision-making and community planning efforts.
 - **Policy S-P4.1.** Maintain a five- to six-minute response standard for fire service within a 1.5-mile radius of a fire station.

Implementation of these goals and policies, as well as compliance with state, regional, and local regulations pertaining to structural safety regarding fault rupture, ground shaking, liquefaction, and landslides, would ensure that potential future development that results from implementation of the proposed project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death. Therefore, impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

GEO-2	Implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil.
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Soils are particularly prone to erosion during the grading phase of development, especially during heavy rains. Substantial soil erosion or the loss of topsoil during construction of future development could undermine structures or minor slopes, which would be a concern during implementation of the proposed project.

The CBC provides regulations for construction to provide proper grading, drainage, and erosion and sediment control. In addition, LBMC Chapter 13, *Los Banos Urban Storm Water Management and Discharge Control*, requires erosion and sediment be controlled. Erosion-control measures can include seeding slopes, installation of temporary dikes and swales, placement of straw bales and filter fences, outlet protection, grass-lined swales, and installation of sediment retention structures, as appropriate for specific sites. In addition, LBMC Section 9-6.03.08, *Grading Design Plan*, sets forth the requirements for the submittal of grading plans that demonstrate that potential future development has been designed to minimize soil erosion.

As described in further detail in Chapter 4.10, *Hydrology and Water Quality*, of this Draft EIR, to minimize potential impacts related to erosion, future development pursuant to the proposed project would require compliance with the Construction General Permit (CGP) Water Quality Order 2009-0009-DWQ (as amended by Order No. 2010-0014-DWQ and 2012-006-DWQ), which includes the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP). A SWPPP requires an erosion-control plan with the incorporation of best management practices to control erosion during construction. Typical construction best management practices include silt fences, fiber rolls, catch basin inlet protection, water trucks, street sweeping, and stabilization of truck entrance/exits. While this regulation is primarily aimed

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at water quality, it is another mechanism routinely applied by the City that would help to minimize the risk of erosion. The proposed General Plan 2042 Safety and Noise (S) Element contains goals, policies, and actions that require local planning and development decisions to consider potential impacts from soil erosion. The following goals policies, and actions, once adopted, would serve to minimize potential adverse impacts from soil erosion.

- **Goal S-1.** Minimize risks of property damage and personal injury posed by seismic hazards, soil hazards, and erosion.
 - **Policy S-P1.5.** Control erosion of graded areas with revegetation or other acceptable methods.
 - **Policy S-P1.6.** Maintain grading and landscaping regulations to reduce soil erosion potential, including:
 - Planning and conducting operations and construction activities in a manner that will not disturb extensive areas of soil or that will disrupt local drainage;
 - Prohibiting organic or earthen material from being discharged into any canals or waterways or placed at locations where they can pass into canals or water- ways in quantities that could impair any beneficial use of the water.
- **Goal S-7.** Improve Los Banos' resilience to existing and future climate change hazards, such as drier conditions, warmer temperatures, flooding, increased wildfire risks, and increased energy use to address changing temperatures and weather patterns.
 - **Action S-A7.3.** Update the Safety Element on a regular basis, as required by the California Government Code, in concert with the Los Banos' General Plan Housing Element to ensure the document's relevance to future safety conditions in the city. When updates to other safety documents occur, incorporate, and make the Safety Element consistent with these updates.
 - **Action S-A7.4.** Incorporate nature-based environmental design and green infrastructure (e.g., permeable surfaces to encourage natural drainage, drought-adapted species to reduce water consumption, plantings with strong root systems to reduce erosion) into existing and new development, as feasible.

Implementation of these goals, policies, and actions, as well as adherence to existing regulatory requirements that include, but are not limited to, the CBC and the LBMC grading and drainage requirements for new developments, would ensure that impacts associated with substantial erosion and loss of topsoil from potential future development would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

GEOLOGY AND SOILS

GEO-3	Implementation of the proposed project would not 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.
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Unstable geologic units are known to be present within the EIR Study Area. The following sections discuss the hazards associated with landslides, lateral spreading, subsidence, liquefaction, or collapse.

Landslides

As stated in impact discussion GEO-1, there are no substantial hazards with respect to slope stability, as the EIR Study Area is mostly flat. There would not be a significant impact from slope stability.

Subsidence

Subsidence has been historically documented in Los Banos and is considered a potential hazard.¹³ Historically, subsidence in Los Banos shows a pattern of widespread irreversible permanent lowering of the ground surface. The probability of subsidence impacts is generally low in Los Banos, due to the lack of prominent geologic structures or contacts within the EIR Study Area. As described in further detail in Chapter 4.10, *Hydrology and Water Quality*, of this Draft EIR, under the Sustainable Groundwater Management Act (SGMA), in groundwater basins that are designated as medium and high priority, local public agencies and groundwater sustainability agencies must assess conditions in their local groundwater basins and then prepare groundwater sustainability plans. The SGMA encourages sustainable groundwater management practices to reduce the potential for future land subsidence, and ongoing surveying of the ground surface by the California Department of Water Resources and the USGS provides a way to verify that efforts in preventing subsidence are effective. The San Joaquin River Exchange Contractors Water Authority's groundwater recharge programs continue to prevent long-term groundwater overdraft conditions and reduce the impact of subsidence to less than significant.

Liquefaction and Lateral Spreading

As stated in impact discussion GEO-1, based on the potential for strong ground shaking combined with a groundwater depth of under 50 feet in parts of the EIR Study Area, much of the EIR Study Area is within an area susceptible to liquefaction. All structures constructed in the EIR Study Area would be designed in accordance with current seismic design standards as found in the CBC. Design measures would be implemented according to the most recent CBC, which would reduce the impact of liquefaction and seismic settlement, including, but not limited to, ground improvement techniques such as in-situ densification, load transfer to underlying nonliquefiable bearing layers, and over-excavation and recompaction with engineered fill method. These design measures would reduce the potential exposure of people and structures to the hazard from liquefaction and seismic settlement such that there would

¹³ Miller, R. E., J. H. Green, and G. H. Davis, 1971, *Geology of the Compacting Deposits in the Los Banos-Kettleman City Subsidence Area, California*, U. S. Geological Survey Professional Paper 497-E, <https://pubs.usgs.gov/pp/0497e/report.pdf>, accessed January 31, 2022.

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not be a significant impact. In addition, based on the lack of a free face, there would not be a significant impact from ground lurching or lateral spreading.

Settlement and Collapse

Settlement and collapse are likely to exist in areas with alluvial soils. Areas of large settlement can damage, or in extreme cases, destroy structures. The presence of compressible soils in the EIR Study Area represents a hazard to structures and people.

CBC design code has been adopted by the City and requires that structures be designed to mitigate compressible soils. Methods that could be used to reduce the impact of compressible soils include in-situ densification, transferring the load to underlying non-compressible layers with piles, and overexcavation of compressible soil and recompaction with engineered fill. These design measures, or a combination of them, would reduce the impact of compressible soils to less than significant.

Summary

As determined in impact discussions GEO-1 and GEO-2, future development from implementation of the proposed project would be required to comply with the CBC, which provides regulations for building design and construction to ensure geologic and soil stability. In addition to protections afforded by State laws, General Plan goals and policies listed under impact discussion GEO-1 would require local planning and development decisions to consider potential risks of development on unstable soils or geologic units. Policy S-P1.1, listed in impact discussion GEO-1, specifically addresses the early review of potential future development to identify where there is a potential danger from geologic hazards.

All potential future development from implementation of the proposed project would be required to comply with State and local regulations, including LBMC provisions and General Plan goals and policies that minimize impacts related to unstable geologic units and soils where landslide, lateral spreading, subsidence, liquefaction, or collapse could occur in the EIR Study Area. Implementation of the above goals and policies, as well as compliance with state, regional, and local regulations pertaining to structural safety regarding a geologic unit or soils that are unstable and could result in landslides, lateral spreading, subsidence, liquefaction, or collapse, and would ensure that potential future development that results from implementation of the proposed project would not directly or indirectly cause substantial adverse effects. Therefore, impacts would be *less than significant* and no mitigation is required.

Significance without Mitigation: Less than significant.

GEOLOGY AND SOILS

GEO-4	Implementation of the proposed project would be located on expansive soil, as defined by Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
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Based on the presence of alluvial materials in the EIR Study Area, there is some potential for expansive/shrink-swell soils throughout Los Banos.^{14, 15} Expansive soils are possible wherever clays and elastic silts may be present, including alluvial soils and weathered granitic and fine-grained sedimentary rocks. The presence of expansive soils represents a hazard to structures and people. In the event that future development is proposed in these portions of the EIR Study Area, General Plan 2042 Policy S-P1.1 would require that the project site identify any potential geological or seismic hazards early in the process and Policy S-P1.4 would be required to evaluate soil characteristics, which would identify if the soils were determined to be expansive. General Plan 2042 requires that future development proposed on expansive soils follow regulations imposed by the CBC, such as standards for seismic safety, excavation, foundations, retaining walls, site demolition, and grading activities, including drainage and erosion control. Specific engineering methods that could be used to reduce the impact of expansive soils include drainage-control devices to limit water infiltration near foundations, over-excavation and recompaction of engineered fill method, or support of the foundation with piles.

Implementation of the proposed goals and policies previously and listed in impact discussion GEO-1, as well as compliance with state, regional, and local regulations pertaining to structural safety regarding a geologic unit or soils that are unstable and could result in landslides, lateral spreading, subsidence, liquefaction, or collapse, and would ensure that potential future development that results from implementation of the proposed project would not directly or indirectly cause substantial adverse effects, including the risks to life or property. Therefore, impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

GEO-5	Implementation of the proposed project would not utilize septic tanks or alternative wastewater disposal systems where soils would be incapable of adequately supporting the in cases where sewers are not available for the disposal of wastewater.
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As discussed in Chapter 4.16, *Utilities and Service Systems*, of this Draft EIR, wastewater from new lots or parcels would be discharged into the existing public sanitary sewer system serviced by the City of Los Banos. Therefore, potential future development in the EIR Study Area is not anticipated to result in the use of septic tanks or alternative wastewater disposal systems.

The policies of the General Plan 2042 Safety and Noise (S) Element and the Public Facilities and Services (PFS) Element require local planning and development decisions to consider potential impacts as a result

¹⁴ Rogers, T. H., 1966, Geologic Map of California, San Jose Sheet, scale 1:250,000, <http://archives.csuchico.edu/digital/collection/coll19/id/326>, accessed January 31, 2022.

¹⁵ U. S. Department of Agriculture Soil Conservation Service, 1990, Soil Survey of Merced County, Western Part, https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA647/0/merced.pdf, accessed January 31, 2022.

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of inadequate soils. The following goals and policies, once adopted, would serve to minimize potential adverse impacts from septic tanks or alternative waste treatment systems where soils may be inadequate for such infrastructure.

- **Goal S-1.** Minimize risks of property damage and personal injury posed by seismic hazards, soil hazards, and erosion.
 - **Policy S-P1.4.** Require preparation of a soils report as part of the development review and/or building permit process.
- **Goal PFS-5.** Ensure that adequate, safe wastewater treatment capacity is available to serve existing and future needs of the city.
 - **Policy PFS-P5.1.** Design stormwater and wastewater collection and treatment facilities to serve expected buildout of the areas served by these facilities.

Policy PFS-P5.1 requires the City to design wastewater collection and treatment facilities to serve expected buildout of the areas served by the City. In the cases where a septic system or other alternative waste system is proposed, on-site soil tests would be required to determine if the soils are suitable for a septic system pursuant to Policy S-P1.4. In addition, as discussed in Section 4.7.1.1, *Regulatory Framework*, LBMC Section 6-5.02, *Use of Public Sewers Required: Exceptions*, would allow for the construction of septic tanks or alternative wastewater disposal systems provided that the applicant obtains a City permit and the wastewater disposal system is only employing subsurface soil absorption facilities where such facilities would not endanger or affect the public water supply. In addition, such a wastewater disposal system is subject to inspection by City personnel, who have the authority to deny the permit if conditions are not up to City standards.

In summary, implementation of the proposed goals and policies listed previously, as well as compliance with state, regional, and local regulations pertaining to structural safety regarding inadequate soils, would ensure that potential future development that results from implementation of the proposed project would not directly or indirectly cause substantial adverse effects. Therefore, potential future development would not result in septic tanks or alternative wastewater disposal systems where soils are not capable of adequately supporting such systems, and the impact would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

GEO-6	Implementation of the proposed project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
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As stated in Section 4.7.1.2 *Existing Conditions*, the geology and soils in the EIR Study Area are common throughout the city and region and are not considered to be unique. However, geological formations underlying the EIR Study Area have the potential to contain unique paleontological resources. Potential future development would be required to comply with the federal Paleontological Resources Preservation Act that limits the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers who have obtained a permit from the appropriate state or federal agency and the

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California Public Resources Code Section 5097 that prohibits the removal of any paleontological site or feature from public lands without the permission of the jurisdictional agency. Ground-disturbing construction activities (e.g., grading and excavation) associated with potential future development in the EIR Study Area could uncover fossilized remains of organisms from prehistoric environments that have not been recorded. The implementation protocols and adherence to the Society of Vertebrate Paleontology standards would ensure the protection of unique paleontological resources during construction of future development. Some protocols include, but are not limited to:

- Excavations within a 50-foot radius of the find shall be temporarily halted or diverted.
- Ground-disturbance work shall cease until a City-approved, qualified paleontologist determines whether the resource requires further study.
- The paleontologist shall document the discovery as needed, in accordance with Society of Vertebrate Paleontology standards as appropriate, evaluate the potential resource, and assess the significance of the finding under the criteria set forth in CEQA Guidelines Section 15064.5.
- The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction activities are allowed to resume at the location of the find.
- If is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of construction activities on the discovery. The excavation plan shall be submitted to the City of Los Banos for review and approval prior to implementation.
- All construction activities shall adhere to the recommendations in the excavation plan.

The proposed General Plan 2042 Park, Open Space, and Conservation (P) Element contains a goal and policies that require local planning and development decisions to consider potential impacts to the loss or damage to paleontological resources. The following goal and policies, once adopted, would serve to minimize potential adverse impacts to paleontological resources.

- **Goal P-10.** Protect and restore the cultural and historic resources of Los Banos.
 - **Policy P-P10.5.** Require that new development analyze and avoid any potential impacts to archaeological, paleontological, and designated historic resources by:
 - Requiring a record search at the Central California Information Center located at California State University Stanislaus and other appropriate historical repositories for development proposed in areas that are considered archaeologically sensitive;
 - Studying the potential effects of development and construction (as required by the California Environmental Quality Act);
 - Requiring pre-construction field surveys (where appropriate) and monitoring during any ground disturbance for all development in areas of historical and archaeological sensitivity; and
 - Implementing appropriate measures or project alternatives to avoid identified significant impacts to historical resources. Where such impacts are unavoidable, document the structure(s) in accordance with the National Park Service's Historic American Building Survey/Historic American Engineering Record (HABS/HAER). Such affects would still be considered significant.

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- **Policy P-P10.8.** Prohibit the damage or destruction of paleontological resources, including prehistorically significant fossils, ruins, monuments, or objects of antiquity, that could potentially be caused by future development.

In summary, implementation of the proposed goal and policies listed here, as well as compliance with state, regional, and local regulations pertaining to paleontological resources, would ensure that potential future development that results from implementation of the proposed project would not directly or indirectly cause substantial adverse effects to paleontological resources. Therefore, the impact would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

GEO-7	Implementation of the proposed project would not in combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to geology and soils.
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As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, the cumulative setting includes growth within the EIR Study Area in combination with projected growth in the rest of Merced County and the surrounding region. As discussed previously, implementation of the proposed project would not result in significant impacts related to geology and soils. Although the project site includes some potentially significant hazards—strong ground shaking, subsidence, settlement, collapse, seismic-related ground failure, and erosion—anticipated development in the EIR Study Area would be subject to regulations pertaining to seismic safety, including the CBC and LBMC requirements. Compliance with these requirements would, to the maximum extent practicable, reduce cumulative, development-related impacts that pertain to seismic shaking, seismic-related ground failure, seismically induced landslides, soil erosion, and unstable soils. Similarly, compliance with relevant LBMC requirements, as well as the requirements of the CBC, would minimize the cumulative impacts associated with substantial erosion or loss of topsoil. While none of the soils in the EIR Study Area are considered to have unique geological resources, unique paleontological resources may occur. Site-specific evaluation in the event that previously unknown resources are discovered during construction activities for new development or redevelopment would be required. Future development would be focused on specific sites or areas, which would be evaluated for site development constraints on a case-by-case basis. Cumulative development in adjacent jurisdictions would be subject to the same federal, state, and local regulations. Since impacts associated with geology and soils are by their nature focused on specific sites or areas, the less-than-significant impacts within the EIR Study Area to avoid impacts related to geology and soils from the proposed project, would not contribute to a cumulative increase in hazards in the immediate vicinity of the EIR Study Area, or greater Merced County. Therefore, cumulative impacts associated with geology and soils would be *less than significant*.

Significance without Mitigation: Less than significant.

GREENHOUSE GAS EMISSIONS

4.8 GREENHOUSE GAS EMISSIONS

This chapter describes the potential impacts from greenhouse gas (GHG) emissions associated with the adoption and implementation of the proposed project. This chapter 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), solid waste disposal from CalRecycle, water use and wastewater generation identified in Chapter 4.15, *Utilities and Service Systems*, of this Draft Environmental Impact Report (EIR), as well as trip generation and vehicle miles traveled (VMT) data provided by Kittelson and Associates, Inc. The GHG emissions modeling is included in Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft EIR. Discussions regarding climate-related hazards, such as air quality, landslides, sea-level rise, flooding, drought, and wildfires are in Chapter 4.3, *Air Quality*; Chapter 4.7, *Geology and Soils*; Chapter 4.10, *Hydrology and Water Quality*; and Chapter 4.18, *Wildfire*, of this Draft EIR.

4.8.1 ENVIRONMENTAL SETTING

4.8.1.1 TERMINOLOGY

The following are definitions for terms used throughout this chapter.

- **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.

4.8.1.2 GREENHOUSE GASES AND CLIMATE CHANGE

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO₂), methane (CH₄), and ozone (O₃)—that are the likely cause of an increase in global average temperatures observed in the twentieth and twenty-first centuries. Other GHGs

GREENHOUSE GAS EMISSIONS

identified by the IPCC that contribute to global warming to a lesser extent are nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.^{1,2,3} The major GHGs applicable to the proposed project are briefly described herein.

- **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 landfills and water treatment facilities.
- **Nitrous oxide (N₂O)** is emitted during agricultural and industrial activities as well as during the 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 stronger greenhouse effects than others. These are referred to as high GWP gases. The GWP of GHG emissions are shown in Table 4.8-1, *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 retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under the IPCC Fifth Assessment Report (AR5), GWP values for CH₄, 10 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 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. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB. 2017, March. Short-Lived Climate Pollutant Reduction Strategy. <https://www.arb.ca.gov/cc/shortlived/shortlived.htm>). 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.

³ Intergovernmental Panel on Climate Change (IPCC). 2001. *Third Assessment Report: Climate Change 2001*. New York: Cambridge University Press.

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TABLE 4.8-1 GHG EMISSIONS AND THEIR RELATIVE GLOBAL WARMING POTENTIAL COMPARED TO CO₂

GHGs	Second Assessment Report (SAR) Global Warming Potential Relative to CO ₂ ^a	Fourth Assessment Report (AR4) Global Warming Potential Relative to CO ₂ ^a	Fifth Assessment Report (AR5) Global Warming Potential Relative to CO ₂ ^a
Carbon Dioxide (CO ₂)	1	1	1
Methane (CH ₄) ^b	21	25	28
Nitrous Oxide (N ₂ O)	310	298	265

Notes:

a. Based on 100-year time horizon of the GWP of the air pollutant compared 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.

Sources: Intergovernmental Panel on Climate Change, 1995, Second Assessment Report: Climate Change 1995; Intergovernmental Panel on Climate Change, 2007, Fourth Assessment Report: Climate Change 2007. New York: Cambridge University Press; Intergovernmental Panel on Climate Change, 2014, Fifth Assessment Report: Climate Change 2014. New York: Cambridge University Press.

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 twentieth century, 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 amount of CO₂ in the atmosphere has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million per year since 1960, mainly due to the combustion of fossil fuels and deforestation.⁴ 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. In the past, gradual changes in the Earth's temperature changed the distribution of species, availability of water, etc. 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.⁵

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

⁴ Intergovernmental Panel on Climate Change (IPCC). 2007. *Fourth Assessment Report: Climate Change 2007*, New York: Cambridge University Press.

⁵ IPCC. 2007. *Fourth Assessment Report: Climate Change 2007*, New York: Cambridge University Press.

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- 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
- 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

Observed changes over the last several decades across the western United States reveal clear signs of climate change. Statewide, average temperatures increased by about 1.7 degrees Fahrenheit (°F) from 1895 to 2011, and warming has been greatest in the Sierra Nevada.⁶ The years from 2014 through 2016 showed unprecedented temperatures, with 2014 being the warmest.⁷ By 2050, California is projected to warm by approximately 2.7°F above 2000 averages, a threefold increase in the rate of warming over the last century. By 2100, average temperatures could increase by 4.1°F to 8.6°F, depending on emissions levels.⁸

In California and western North America, observations of the climate have shown: (1) a trend toward warmer winter and spring temperatures; (2) a smaller fraction of precipitation falling as snow; (3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones; (4) advanced shift in the timing of snowmelt of 5 to 30 days earlier in the spring; and (5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms.⁹ 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. Statewide precipitation has become increasingly variable from year to year, with the driest consecutive four years occurring from 2012 to 2015.¹⁰

According to the California Climate Action Team—a committee of state agency secretaries and the heads of agencies, boards, and departments, led by the California Environmental Protection Agency (CalEPA)—even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 4.8-1), and the inertia of the Earth’s climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks to California are described herein and shown in Table 4.8-2, *Summary of GHG Emissions Risks to California*, and include

⁶ California Climate Change Center, 2012. Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California.

⁷ Office of Environmental Health Hazards Assessment (OEHHA), 2018. Indicators of Climate Change in California. <https://oehha.ca.gov/media/downloads/climate-change/report/2018caindicatorsreportmay2018.pdf>, accessed November 21, 2019.

⁸ California Climate Change Center, 2012. Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California.

⁹ California Climate Action Team, 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature.

¹⁰ OEHHA. 2018. Indicators of Climate Change in California. <https://oehha.ca.gov/media/downloads/climate-change/report/2018caindicatorsreportmay2018.pdf>, accessed April 3, 2019.

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impacts to public health, water resources, agriculture, coastal sea level, forest and biological resources, and energy.

TABLE 4.8-2 SUMMARY OF GHG EMISSIONS RISK TO CALIFORNIA

Impact Category	Potential Risks
Public Health Impacts	Heat waves will be more frequent, hotter, and longer Fewer extremely cold nights Poor air quality made worse Higher temperatures increase ground-level ozone levels
Water Resource Impacts	Decreasing Sierra Nevada snowpack 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 pests 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: California Climate Change Center, 2012, Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California. California Energy Commission, 2006. Our Changing Climate: Assessing the Risks to California, 2006 Biennial Report, CEC-500-2006-077. California Energy Commission, 2009. The Future Is Now: An Update on Climate Change Science, Impacts, and Response Options for California. CEC-500-2008-0077. California Natural Resources Agency, 2014. Safeguarding California: Reducing Climate Risk, An Update to the 2009 California Climate Adaptation Strategy.

4.8.1.3 REGULATORY FRAMEWORK

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 USEPA'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 do not impose any emission-reduction requirements but allow the USEPA 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.¹¹

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.

- **US Mandatory Report Rule for Greenhouse Gases (2009).** In response to the endangerment finding, the USEPA 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 MT or more of CO₂e per year are required to submit an annual report.
- **Update to Corporate Average Fuel Economy Standards (2021 to 2026).** 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. In response to Executive Order 13990, the National Highway Traffic Safety Administration (NHTSA) announced new proposed fuel standards on August 5, 2021. On December 21, 2021, under the direction of Executive Order (EO) 13990, the NHTSA repealed SAFE Vehicles Rule Part One, which had preempted state and local laws related to fuel economy standards. Fuel efficiency under the new standards proposed would increase 8 percent annually for model years 2024 to 2026 and increase estimated fleetwide average by 12 miles per gallon (mpg) for model year 2026 compared to model year 2021.¹²
- **USEPA Regulation of Stationary Sources under the Clean Air Act (Ongoing).** Pursuant to its authority under the Clean Air Act, the USEPA 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 USEPA 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 ACE rule was vacated by the United States Court of Appeals for the District of Columbia Circuit on January 19, 2021. As of 2022, the current administration is assessing options on potential future regulations.

¹¹ USEPA. 2009, USEPA: Greenhouse Gases Threaten Public Health and the Environment, https://archive.epa.gov/epapages/newsroom_archive/newsreleases/08d11a451131bca585257685005bf252.html, accessed on March 18, 2019.

¹² National Highway Traffic Safety Administration (NHTSA). 2021, August 5. USDOT Proposes Improved Fuel Economy Standards for MY 2024-2026 Passenger Cars and Light Trucks. <https://www.nhtsa.gov/press-releases/fuel-economy-standards-2024-2026-proposal>.

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State Regulations

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order (EO) S-03-05, EO B-30-15, EO B-55-18, Assembly Bill 32 (AB 32), SB 32, and SB 375.

- **Executive Order S-03-05.** EO 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 Climate Change Scoping Plan (Scoping Plan) to outline a plan to achieve the GHG-emissions reduction targets of AB 32.
- **Executive Order B-30-15.** EO B-30-15, signed April 29, 2015, set a goal of reducing GHG emissions in the state to 40 percent of 1990 levels by year 2030. EO B-30-15 also directed 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 EO S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaption strategy, *Safeguarding California*, to ensure climate change is accounted for in state planning and investment decisions.
- **Senate Bill 32 and Assembly Bill 197.** In September 2016, SB 32 and AB 197 were signed into law, making the EO goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires CARB to prioritize direct emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.
- **2017 Scoping Plan Update.** EO B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On December 24, 2017, CARB adopted the 2017 Scoping Plan Update, which outlined potential regulations and programs, including strategies consistent with AB 197 requirements, to achieve the 2030 target. The 2017 Scoping Plan established a new emissions limit of 260 MMTCO₂e for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030.¹³

California's climate strategy will require contributions from all sectors of the economy, including an enhanced focus on zero- and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning, to support livable, transit-connected communities

¹³ CARB. 2017, California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target, https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf

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and conservation of agricultural and other lands. Requirements for GHG reductions at stationary sources complement local air pollution control efforts by the local air districts to tighten criteria air pollutants and toxic air contaminant emissions limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZE buses and trucks.
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewables Portfolio Standard (RPS) to 50 percent and doubles energy-efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, uses near-zero emissions technology, and deployment of ZE trucks.
- Implementing the Short-Lived Climate Pollutant Strategy, which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- Continued implementation of SB 375.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

In addition to the statewide strategies listed here, the 2017 Scoping Plan also identified local governments as essential partners in achieving the State's long-term GHG reduction goals and identified local actions to reduce GHG emissions. Part of the recommended actions are statewide targets of no more than 6 MTCO₂e or less per capita by 2030 and 2 MTCO₂e or less per capita by 2050. CARB recommends that local governments evaluate and adopt robust and quantitative locally appropriate goals that align with the statewide per-capita targets and the State's sustainable development objectives and develop plans to achieve the local goals. The statewide per-capita goals were developed by applying the percentage reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40 and 80 percent, respectively) to the State's 1990 emissions limit established under AB 32.

For California Environmental Quality Act (CEQA) projects, CARB states that lead agencies have the discretion to develop evidenced-based numeric thresholds (mass emissions, per capita, or per service population)—consistent with the Scoping Plan and the state's long-term GHG goals. To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project's region that contribute to potential air quality, health, and economic co-benefits. Where further project design or regional investments are infeasible or not proven to be effective, CARB recommends mitigating potential GHG impacts through purchasing and retiring carbon credits.

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The 2017 Scoping Plan scenario is set against what is called the business-as-usual yardstick—that is, what would the GHG emissions look like if the State did nothing at all beyond the existing policies that are required and already in place to achieve the 2020 limit, as shown in Table 4.8-3, *2017 Climate Change Scoping Plan Emissions Reductions Gap*. It includes the existing renewables requirements, advanced clean cars, the “10 percent” LCFS, and the SB 375 program for more vibrant communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years. Also shown in the table are the known commitments, which are expected to result in emissions that are 60 MMTCO₂e above the target in 2030. If the estimated GHG reductions from the known commitments are not realized due to delays in implementation or technology deployment, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved.

TABLE 4.8-3 2017 CLIMATE CHANGE SCOPING PLAN EMISSIONS REDUCTIONS GAP

Modeling Scenario	2030 GHG Emissions MMTCO ₂ e
Reference Scenario (Business-as-Usual)	389
With Known Commitments	320
2030 GHG Target	260
Gap to 2030 Target	60

Source: California Air Resources Board, 2017, California’s 2017 Climate Change Scoping Plan: The Strategy for Achieving California’s 2030 Greenhouse Gas Target, https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf, accessed on March 18, 2019.

Table 4.8-4, *2017 Climate Change Scoping Plan Emissions Change by Sector*, provides estimated GHG emissions by sector, compared to 1990 levels, and the range of GHG emissions for each sector estimated for 2030.

TABLE 4.8-4 2017 CLIMATE CHANGE SCOPING PLAN EMISSIONS CHANGE BY SECTOR

Scoping Plan Sector	1990 MMTCO ₂ e	2030 Proposed Plan Ranges MMTCO ₂ e	% Change from 1990
Agricultural	26	24-25	-4% to -8%
Residential and Commercial	44	38-40	-9% to -14%
Electric Power	108	30-53	-51% to -72%
High GWP	3	8-11	267% to 367%
Industrial	98	83-90	-8% to -15%
Recycling and Waste	7	8-9	14% to 29%
Transportation (including TCU)	152	103-111	-27% to -32%
Net Sink ^a	-7	TBD	TBD
Sub Total	431	294-339	-21% to -32%
Cap-and-Trade Program	NA	34-79	NA
Total	431	260	-40%

Notes: TCU = Transportation, Communications, and Utilities; TBD: To Be Determined.

a. Work is underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.

Source: CARB. 2017, California’s 2017 Climate Change Scoping Plan: The Strategy for Achieving California’s 2030 Greenhouse Gas Target, https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf

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- **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 Scoping Plan Update.** The 2022 Scoping Plan is currently being updated by CARB to address the GHG-reduction goals of EO B-55-18 by 2045. The 2022 Scoping Plan update will consider carbon stock and sequestration and carbon dioxide removal. Based on the preliminary modeling results identified in CARB’s April 20, 2022, workshop, the measures in the Scoping Plan will achieve 80 percent below 1990 levels by 2050. The Draft 2022 Scoping Plan was released May 10, 2022, and final adoption is anticipated in late fall 2022.¹⁴
- **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 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 Merced County Association of Governments (MCAG) is the MPO for the Merced region. 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.
- **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 sustainable communities strategies (SCS) 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 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 SB 375 than are currently in place, which for 2035, translates

¹⁴ CARB. 2022, May 10. Draft 2022 Scoping Plan Update. <https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf>

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into proposed targets that either match or exceed the emission-reduction levels in the MPOs' currently adopted SCS.¹⁵

Table 4.8-5, *List of State GHG Regulations*, provides a summary list of regulations adopted in California that reduce GHG emissions. A complete description of these regulations is included in Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft EIR.

TABLE 4.8-5 LIST OF STATE GHG REGULATIONS

Sector	Regulations
State GHG Targets	AB 32
	SB 32
	EO S-03-05
	EO B-15-30
Transportation	AB 1493
	EO S-01-07
	SB 375
Renewable Energy	SB 1078
	SB 107
	SB X1-2
	EO S-14-08
	SB 350
	SB 100
Energy Efficiency	EO B-55-18
	Title 24, Part 6, Building Energy Efficiency Standards
	Title 24, Part 11, Green Building Standards Code (CALGreen)
Solid Waste	Title 20, Appliance Efficiency Regulations
	AB 939
	AB 341
	AB 1327
Water	AB 1826
	SBX7-7
Short-Lived Pollutants	AB 1881
	SB 1383

Source: Compiled by PlaceWorks, 2022.

Regional Plans and Regulations

2018 Regional Transportation Plan and Sustainable Communities Strategy

SB 375 requires each MPO to prepare an SCS in its regional transportation plan (RTP). MCAG updated and adopted an SCS in its RTP on August 6, 2018, called *2018 Regional Transportation Plan and Sustainable Communities Strategy for Merced County* (2018 RTP/SCS).¹⁶ Under the 2018 RTP/SCS, the Merced region

¹⁵ CARB. 2018, February. Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. https://www.arb.ca.gov/cc/sb375/sb375_target_update_final_staff_report_feb2018.pdf.

¹⁶ Merced County Association of Governments, 2018, *Regional Transportation Plan Sustainable Communities Strategy for Merced County*.

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would exceed the GHG targets provided under SB 375 with a 15 percent per-capita reduction from 2005 levels by 2020 and a 25 percent per capita reduction from 2035 GHG emission levels by 2035. The proposed 2018 RTP/SCS focuses on achieving GHG-reduction goals by constructing more infill development in downtowns and centers in close proximity to jobs and services. In addition, the 2018 RTP/SCS emphasizes transportation investments in transportation facilities to improve bicycle and pedestrian mobility. Furthermore, implementation of the 2018 RTP/SCS is projected to result in a decrease in VMT throughout the region.

Local Regulations

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives pertaining to GHG emissions. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions related to GHG emissions impacts are included in Title 8, *Building Regulations*, as follows:

- **Title 8, Chapter 1.12, *Adoption of the California Green Building Standards Code 2019 Edition*.** This chapter incorporates California Code of Regulations Title 24, Part 11, California Green Building Standards Code.
- **Title 8, Chapter 6.04, *Solar Energy System Requirements*.** This chapter requires that all solar energy systems shall meet applicable health and safety standards and requirements imposed by the State and the City.
- **Title 8, Chapter 6.06, *Small Residential Rooftop Solar Energy Systems Permit Process*.** This chapter ensures a streamlined solar permitting process that complies with the Solar Rights Act and AB 2188, to achieve timely and cost-effective installations of small residential rooftop solar energy systems.

4.8.1.4 EXISTING CONDITIONS

California's GHG Sources and Relative Contribution

In 2021, the statewide GHG emissions inventory was updated for 2000 to 2019 emissions using the GWPs in IPCC's AR4.¹⁷ Based on these GWPs, California produced 418.2 MMTCO₂e GHG emissions in 2019. California's transportation sector was the single-largest generator of GHG emissions, producing 39.7 percent of the state's total emissions. Industrial sector emissions made up 21.1 percent, and electric power generation made up 14.1 percent of the state's emissions inventory. Other major sectors of GHG emissions include commercial and residential (10.5 percent), agriculture and forestry (7.6 percent), high GWP (4.9 percent), and recycling and waste (2.1 percent).¹⁸

¹⁷ Intergovernmental Panel on Climate Change (IPCC). 2013. Fifth Assessment Report: Climate Change 2013. New York: Cambridge University Press.

¹⁸ CARB. 2021, July 28. California Greenhouse Gas 2000-2019 Emissions Trends and Indicators Report. https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf.

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Since the peak level in 2004, California's GHG emissions have generally followed a decreasing trend. In 2016, California statewide GHG emissions dropped below the AB 32 target for year 2020 of 431 MMTCO₂e and have remained below this target since then. In 2019, emissions from routine GHG-emitting activities statewide were almost 13 MMTCO₂e lower than the AB 32 target for year 2020. Per-capita GHG emissions in California have dropped from a 2001 peak of 14.0 MTCO₂e per person to 10.5 MTCO₂e per person in 2019, a 25 percent decrease.

Transportation emissions continued to decline in 2019 statewide as they had done in 2018, with even more substantial reductions due to a significant increase in renewable diesel. Since 2008, California's electricity sector has followed an overall downward trend in emissions. In 2019, solar power generation continued its rapid growth since 2013. Emissions from high-GWP gases made up 4.9 percent of California's emissions in 2019. This continues the increasing trend as the gases replace ozone-depleting substances being phased out under the 1987 Montreal Protocol. Overall trends in the inventory also demonstrate that the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross domestic product) has declined 45 percent since the 2001 peak, though the state's gross domestic product grew 63 percent during this period.¹⁹

Community Emissions

The existing land uses in Los Banos consist of single- and multifamily 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.²⁰ Emissions associated with the EIR Study Area are shown in Table 4.8-6, *Existing Greenhouse Gas Emissions Inventory in the EIR Study Area*.

TABLE 4.8-6 EXISTING GREENHOUSE GAS EMISSIONS INVENTORY IN THE EIR STUDY AREA

Emissions Sector	Existing MTCO ₂ e	% of Total
Building Electricity	32,950	8%
Building Natural Gas	30,227	7%
On-Road Transportation	291,432	72%
Off-Road Vehicles and Equipment	41,045	10%
Solid Waste/Landfills	4,038	1%
Water Use and Wastewater Treatment	3,633	1%
Total Community Emissions	403,324	100%
Service Population (SP)	49,900	
MTCO₂e/SP	8.1	

Source: PlaceWorks, 2022. See Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft EIR.

¹⁹ CARB. 2021, July 28. California Greenhouse Gas 2000-2019 Emissions Trends and Indicators Report. https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf.

²⁰ Emissions from water demand and wastewater are emissions associated with electricity used to supply, treat, and distribute water.

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4.8.2 STANDARDS OF SIGNIFICANCE

Implementation of 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.

4.8.2.1 SJVAPCD PERFORMANCE METRICS

The issue of global climate change is, by definition, a cumulative environmental impact. The SJVAPCD adopted Guidance Methodology for addressing GHG emissions under CEQA on December 17, 2009.²¹ In addition, SJVAPCD adopted a Climate Change Action Plan (CCAP) to identify strategies to reduce GHG emissions in the SJVAPCD.²² SJVAPCD's methodology includes a tiered approach:

- **CEQA Exemptions:** If a project is exempt from CEQA, individual-level and cumulative GHG emissions are treated as less than significant.
- **Consistency with a GHG Reduction Plan:** If the project complies with a GHG emissions reduction plan or mitigation programs that avoid or substantially reduce GHG emissions in the geographic area where the project is located (i.e., city or county), individual-level and cumulative GHG emissions are treated as less than significant.
- **Project-Level (AB 32):** If a project is not exempt or consistent with an applicable GHG reduction plan, then a project would need to comply with AB 32 (year 2020) by conducting an analysis of whether the project would reduce GHG emissions by 29 percent from business as usual (BAU) through implementation of best performance standards.²³
- **Construction:** SJVAPCD does not have thresholds of significance for construction-related GHG emissions because construction emissions are one-time, nonrecurring emissions. GHG emissions from construction activity are not assumed to significantly contribute to cumulative GHG emissions impacts of a proposed project.

²¹ San Joaquin Valley Air Pollution Control District (SJVAPCD), 2009. Guidance for Valley Land-Use Agencies in Addressing GHG Emissions for New Projects.

²² San Joaquin Valley Air Pollution Control District (SJVAPCD), 2009. Climate Change Action Plan, Final Staff Report, Addressing Greenhouse Gas Emissions Impacts under the California Environmental Quality Act.

²³ The November 30, 2015, *Center For Biological Diversity, et al. v. California Department of Fish and Wildlife (The Newhall Land and Farming Company, Real Party in Interest)* (2015) 62 Cal.4th 204) ruling effectively limited use of a GHG performance metric. The 29 percent below BAU established in the CARB 2008 Scoping Plan is derived from the statewide reduction target set by AB 32 for year 2020. The court held that the 29 percent is the statewide goal, but there is no substantial evidence that establishes a nexus between the statewide goal and the percent reduction a specific land use project would need to achieve to be consistent with the goals of AB 32. Projects must determine the reduction target specific to the land use type being proposed.

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4.8.2.2 CONSISTENCY WITH EO S-03-05 AND EO B-55-18

The General Plan 2042 forecasts growth in Los Banos through year 2042; therefore, this EIR 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. These include EO S-03-05, which requires an 80 percent reduction in GHG emissions by 2050 to stabilize CO₂e emissions and avoid the most catastrophic impacts of climate change as well as substantial progress toward the State's carbon neutrality goals of EO B-55-18.²⁴ Based on the City's existing inventory in Table 4.8-6, a trajectory consistency with the State's GHG emissions targets would be 145,197 MTCO₂e by year 2042.

4.8.2.3 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 4.8-2. 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, EO S-03-05, and EO B-55-18.

²⁴ 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, Executive Order S-03-05 GHG reduction targets for 2050 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 Executive Order S-03-05 are applicable to the CCAP. However, the CCAP includes measures that align with the state's carbon neutrality goals under Executive Order B-55-18.

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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 ambient air quality standards for GHG emissions and given the 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.

4.8.2.4 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 City's GHG emissions inventory includes the following sectors:

- **Transportation:** Transportation emissions forecasts were modeled using emission rates from CARB's EMFAC2017, version 1.0.2 web database. Model runs were based on daily VMT data provided by Kittelson and Associates, Inc. and adjusted for the population and employment in the EIR Study Area in year 2021. The VMT provided includes the full trip length for land uses in the city. 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.
- **Energy:** Energy use for residential and nonresidential land uses in the City were modeled using electricity and natural gas data provided by PG&E. Residential energy and nonresidential energy forecasts are adjusted for increases in housing units and employment, respectively. In 2022, Los Banos is switching to Peninsula Clean Energy (PCE). PCE has a current carbon intensity of 187 MTCO₂e using the time-coincident accounting method.²⁵ The carbon intensity factor of the purchased electricity for the buildout year is based on the RPS goal in SB 100, which increased the RPS to 60 percent by 2030 and encourages the state's electricity to come from carbon-free resources by 2045. Intensity factors for CO₂, CH₄, and N₂O provided in CARB's Local Governments Protocol (LGOP), version 1.1, were used for natural gas.
- **Off-Road Equipment:** Emission rates from CARB's OFFROAD2021, version 1.0.1, web database were used to estimate criteria air pollutant emissions from light commercial and construction equipment in the city. 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 Merced for year 2021. To determine the percentage of emissions attributable to the City, light commercial equipment is estimated based on employment for the City of Los Banos as a percentage of Merced County. Agricultural equipment is based on the percentage of farmland in the city compared to the County of Merced. Construction equipment use is estimated based on building permit data for the City of Los Banos and County of Merced from data compiled by the US Census. The light commercial equipment

²⁵ PCE. 2021, December. Our Path to 24/7 Renewable Energy by 2025. <https://www.peninsulacleanenergy.com/wp-content/uploads/2021/11/Whitepaper-OUR-PATH-TO-247-RENEWABLE-ENERGY-BY-2025.pdf>

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emissions forecast is adjusted for changes in employment in the city. It is assumed that construction emissions for the forecast year would be similar to historical levels. Annual emissions are derived by multiplying daily emissions by 365 days.

- **Water/Wastewater.** 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 and horizon-year proposed project water demand and wastewater generation (gallons per year) in the city are based on the analysis in Chapter 4.16, *Utilities and Service Systems*. Electricity use from water use is estimated using energy rates identified by the CEC.²⁶ Then energy is multiplied by the carbon intensity of energy for PG&E (see Energy Use). Wastewater treatment also results in fugitive GHG emissions from wastewater processing. Fugitive emissions from wastewater treatment in the city were calculated using the emission factor's in CARB's LGOP, Version 1.1.
- **Solid Waste Disposal.** Solid waste disposed of by residents and employees in the city generates GHG emissions. The degradable organic component (DOC) in waste decays slowly throughout a few decades, during which time, 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 after deposition, then gradually decline as the degradable carbon in the waste is consumed by the bacteria responsible for the decay. Significant CH₄ production typically begins one or two years after waste disposal in a landfill and continues for 10 to 60 years or longer. The peak annual emissions from waste-in-place are reported. Jurisdiction reports for the Merced County Regional Waste Management Authority (MCRWMA) were obtained from CalRecycle. Waste from Los Banos was estimated based on the service population of Merced County versus the City of Los Banos. 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 the City of Los Banos, 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 2042 were forecast based on the percentage increase in service population for the city. The emissions forecast does not account for reductions from increasing waste diversion.

Industrial sources of emissions that require a permit from SJVAPCD are not included in the community inventory. However, due to the 15/15 Rule,²⁷ 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. Lifecycle emissions are not included in this analysis because not enough information is available for the proposed

²⁶ California Energy Commission (CEC). 2006, December. Refining Estimates of Water-Related Energy Use in California. CEC-500-2006-118. Prepared by Navigant Consulting, Inc. Based on the electricity use for Northern California.

²⁷ Based on PG&E's 15/15 Rule, any aggregated information provided by the utilities 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 is below 15, or if a single customer's load is more than 15 percent, PG&E must combine certain data categories (e.g., commercial and industrial energy consumption) prior to release to protect the privacy of individual users.

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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.

4.8.3 IMPACT DISCUSSION

GHG-1	Implementation of the proposed project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
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Future potential development under the proposed project would contribute to global climate change through direct and indirect emissions of GHGs in the city. However, a general plan is a long-range policy document that does not directly result in development without additional approvals. Any development proposed in the city must be analyzed for consistency with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA if required; and obtain all necessary clearances and permits from regulatory agencies.

Buildout of the proposed project is not linked to a specific development time frame but is assumed over a 20-year project horizon through 2042. Implementation of the proposed project by the horizon year of 2042 would result in a net increase in service population of 34,600 in the EIR Study Area. Service population includes both 29,600 new residents and 5,000 new workers. Table 4.8-7, *EIR Study Area Horizon Year 2042 GHG Emissions Forecast*, provides a comparison of the change in GHG emissions in the EIR Study Area between the CEQA baseline (2021) and the General Plan horizon year (2042) conditions.

Horizon Year 2042 Emissions Compared to Existing Conditions

As shown in Table 4.8-7, buildout of the land uses accommodated under the proposed project would result in an increase of 24,897 MTCO₂e of GHG emissions from existing conditions. In addition, while buildout under the proposed project is projected to increase service population by approximately 34,600 persons (69 percent increase), emissions per person would decrease compared to the existing baseline. Emissions per service population would decrease to 5.1 MTCO₂e/SP in horizon year 2042 from 8.1 MTCO₂e/SP for the existing baseline year.

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TABLE 4.8-7 EIR STUDY AREA HORIZON YEAR 2042 GHG EMISSIONS FORECAST

Emissions Sector	GHG Emissions (MTCO ₂ e/Year)					
	Existing (2021)		2042		Net Change	
Building Electricity	32,950	8%	13,799	3%	-19,150	-58%
Building Natural Gas	30,227	7%	51,345	12%	21,118	70%
On-Road Transportation	291,432	72%	323,430	76%	31,999	11%
Off-Road Vehicles and Equipment	41,045	10%	31,252	7%	-9,793	-24%
Solid Waste/Landfills	4,038	1%	6,824	2%	2,786	69%
Water Use and Wastewater Treatment	3,633	1%	1,571	0%	-2,063	-57%
Total Community Emissions	403,324	100%	428,221	100%	24,897	6%
Trajectory to EO S-03-05 for Year 2042	145,197	-64%	Does Not Achieve Target	—	—	—
Service Population (SP)	49,900		84,500		34,600	69%
MTCO ₂ e/SP	8.1		5.1		-3.0	-37%

Notes: Emissions may not total to 100 percent due to rounding. Based on GWPs in the IPCC Fifth Assessment Report (AR5).
Source: PlaceWorks, 2022. See Appendix B, *Air Quality and Greenhouse Gas Emissions Data*, of this Draft EIR.

Consistency with SB 32 and EO S-03-05 GHG Reduction Targets

This EIR also analyzes the potential for the proposed project to conflict with the GHG reduction goals established under EO S-03-05 and substantial progress toward the State's carbon neutrality goals. This EIR assumes that the CEQA baseline (2021 emissions) reflects the AB 32 goal in 2020. As a result, at the General Plan horizon year of 2042, the City would need to reduce GHG emissions by 64 percent to ensure the City is on a trajectory to achieve the long-term goal under EO S-03-05 and substantial progress toward the State's carbon neutrality goals. This is equivalent to 148,804 MTCO₂e in the EIR Study Area by year 2042. As shown in Table 4.8-7 and discussed previously, it is anticipated that implementation of the proposed project would result in an overall increase in emissions in horizon year 2042 compared to the existing baseline. Additionally, the City would not achieve the 64 percent necessary to ensure the City is on a trajectory to achieve the long-term year goals under EO S-03-05 and EO B-55-18. Therefore, GHG emissions impacts for the proposed project are considered *potentially significant* in regard to meeting the long-term year 2050 reduction goal.

While growth within the EIR Study Area would cumulatively contribute to GHG emissions impacts, the General Plan 2042 Land Use (LU) Element and Parks, Open Space, and Conservation (P) Element includes goals and policies that require local planning and development decisions to consider impacts from GHG emissions and to reduce those GHG emissions. The following goals and policies would serve to minimize GHG emissions in the EIR Study Area.

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- **Goal LU-4.** Protect and enhance Los Banos' image and unique sense of place.
 - **Policy LU-P4.8.** Facilitate environmentally sensitive development practices by:
 - Exploring and promoting the use of new sustainable building materials, such as mass timber and cross-laminated timber in new development, consistent with State building codes;
 - Encouraging the purchase of locally or regionally available materials, when practical;
 - Encouraging both passive solar design features and the incorporation of solar panels or solar-readiness;
 - Promoting the use of the U.S. Green Building Council's LEED rating system; and
 - Creating Green Building Design Guidelines to be used in the development review process.
- **Goal P-12.** Promote resilient design and energy efficiency in the built environment.
 - **Policy P-P12.1.** Maximize tree planting, landscaping, green roofs, and other vegetation measures to mitigate heat gain and heat island effects, improve resilience, and create new spaces for biodiversity.
 - **Policy P-P12.2.** Where feasible, require use of materials that minimize heat island effect, such as cool pavements and cool roofs. Where feasible, minimize impervious and paved surfaces.
 - **Policy P-P12.3.** Encourage the use of low-emission building, such as HVAC equipment, and operation equipment for all new residential and commercial development.
 - **Policy P-P12.4.** Provide incentives and/or partner with the Community Choice Aggregation agency for improving energy efficiency in existing buildings.
 - **Policy P-P12.5.** Educate City employees and department managers about sustainability with a focus on specific operational changes that can be made to reduce greenhouse gas emissions, such as fuel-efficient driving, and reducing energy use at work.
- **Goal P-13.** Ensure equitable and healthy air quality among all communities in the city so that all residents, including those with high sensitivity to unhealthy air, can live in their community without facing disproportionately high risks of respiratory disease and other health problems.
 - **Policy P-P13.1.** Require a cumulative health risk assessment, including consideration of truck traffic impacts, when a project potentially affects sensitive receptors in disadvantaged communities, and require appropriate mitigation based on the findings of the assessment.
 - **Policy P-P13.2.** When evaluating health risk impacts of projects in disadvantaged communities, use a cancer risk of 1.0 per million as the threshold for a significant impact.
 - **Policy P-P13.3.** Require new development to site-sensitive receptors, such as homes, schools, playgrounds, sports fields, childcare centers, senior centers, and long-term healthcare facilities as far away as possible from significant pollution sources.
 - **Policy P-P13.4.** When evaluating air quality impacts of projects in disadvantaged communities, use thresholds of significance that match or are more stringent than the air quality thresholds of significance identified in the current San Joaquin Valley Air Pollution Control District Air Quality Guidelines.

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- **Policy P-P13.5.** Prioritize new street tree plantings and increase the tree canopy in disadvantaged communities, in particular areas with a high heat index.
- **Policy P-P13.6.** Preserve, restore, and enhance natural landscapes in and near disadvantaged communities for their role in improving air quality and community health and increasing resilience against climate change.
- **Policy P-P13.7.** Require warehouse and distribution facilities to provide adequate on-site truck parking to prevent idling and require refrigerated warehouses to provide generators for refrigerated trucks.
- **Action P-A13.1.** Complete an urban forest master plan that includes quantified goals and tracking methods, prioritizing disadvantaged communities.

Furthermore, as described in Chapter 4.15, *Transportation*, of this Draft EIR, the General Plan 2042 Economic Development (ED) Element, Land Use (LU) Element, and Circulation (C) Element include land use designations, goals, policies, and actions that will help reduce VMT and therefore reduce GHG emissions from automobiles. Please see impact discussion TRAN-1 for a complete list of these goals, policies, and actions.

Implementation of these goals, policies, and actions of the General Plan 2042 would reduce GHG emissions in the EIR Study Area to the extent feasible. As described and shown in Table 4.8-7, GHG emissions reduction are only 1 percent less than the CEQA baseline and not the 64 percent necessary to ensure the city is on a trajectory to achieve the long-term reductions goals of EO S-03-05 and substantial progress toward the State's carbon neutrality goals of EO B-55-18. As such, impacts are potentially *significant*.

Impact GHG-1: Implementation of the General Plan 2042 would not meet the long-term greenhouse gas emissions reduction goal under Executive Order (EO) S-03-05 or substantial progress toward carbon neutrality goals under EO B-55-18.

Mitigation Measure GHG-1: The City of Los Banos shall prepare a Climate Action Plan (CAP) to achieve the GHG reduction targets of Senate Bill 32 for year 2030. The CAP shall be completed within 24 months of certification of the General Plan EIR. The CAP shall be updated every five years to ensure the City is monitoring the plan's progress toward achieving the City's greenhouse gas (GHG) reduction target and to require amendment if the plan is not achieving the specified level. The update shall consider a trajectory consistent with the GHG emissions-reduction goal established under Executive Order (EO) S-03-05 for year 2050 and the latest applicable statewide legislative GHG emission reduction that may be in effect at the time of the CAP update (e.g., Senate Bill 32 for year 2030). 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 Senate Bill 32 for year 2030.
- Tools and strategies for reducing GHG emissions to ensure a trajectory with the long-term GHG reduction goal of Executive Order S-03-05.

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

Significance with Mitigation: *Significant and unavoidable.* 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 year 2050 GHG reduction goal set by EO S-03-05 and substantial progress toward the State’s carbon neutrality goals of EO B-55-18, and would ensure that the City is tracking and monitoring GHG emissions. However, given the growth in population and employment within the city and the magnitude of emission reductions needed to achieve the GHG-reduction target, GHG emissions are considered *significant and unavoidable*.

GHG-2	Implementation of the General Plan 2042 would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.
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Applicable plans adopted for the purpose of reducing GHG emissions include CARB’s Scoping Plan and the 2018 MCAG RTP/SCS. A consistency analysis with these plans is presented herein.

CARB Scoping Plan

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 4.8-7 include reductions associated with statewide strategies that have been adopted since AB 32 and SB 32. 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 and SB 32. Future development projects would be required to comply with these state GHG emissions-reduction measures because they are statewide strategies. For example, new buildings associated with land uses accommodated by implementing the General Plan 2042 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 the discussion for Impact GHG-1, the General Plan 2042

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includes goals, policies, and programs that would help reduce GHG emissions and therefore help achieve GHG-reduction goals. The proposed project would not obstruct implementation of the CARB Scoping Plan, and impacts would be *less than significant*.

Regional Transportation Plan and Sustainable Communities Strategy

SB 375 requires each MPO to prepare an SCS in its RTP. MCAG updated and adopted an SCS in its RTP on August 6, 2018 (2018 RTP/SCS).²⁸ Under the 2018 RTP/SCS, the Merced County region would exceed the GHG targets provided under SB 375 with a 15 percent per-capita reduction from 2005 levels by 2020 and a 25 percent per-capita reduction from 2035 GHG emission levels by 2035. The 2018 RTP/SCS focuses on achieving GHG-reduction goals by constructing more infill development in downtowns and centers in close proximity to jobs and services. In addition, the 2018 RTP/SCS emphasizes transportation investments in transportation facilities to improve bicycle and pedestrian mobility.

As described in Chapter 4.15, *Transportation*, of this Draft EIR, the General Plan 2042 the Economic Development (ED) Element, Land Use (LU) Element, and Circulation (C) Element include land use designations, goals, policies, and actions that will help reduce VMT and therefore reduce GHG emissions from automobiles. Please see impact discussion TRAN-2 for a complete list of these goals, policies, and actions.

Furthermore, implementation of the General Plan 2042 is projected to result in a decrease in GHG emissions on a per-capita basis. Thus, the proposed project would be consistent with the overall goals of MCAG's 2018 RTP/SCS in concentrating new development in locations where there is existing infrastructure and transit. Therefore, the proposed project would not conflict with the land use concept plan in MCAG's 2018 RTP/SCS and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

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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Project-related GHG emissions are not confined to a particular air basin but are dispersed worldwide. Therefore, impacts under impact discussion GHG-1 are not project-specific impacts to global warming, but are the proposed project's contribution to this cumulative impact. As described under impact discussion GHG-1, implementation of the proposed project would result in an increase in GHG emissions in horizon year 2042 from existing baseline and would not meet the long-term GHG reduction goal under EO S-03-05. Therefore, project-related GHG emissions and their contribution to global climate change would be cumulatively considerable, and GHG emissions impacts would be *significant and unavoidable*, the same as Impact GHG-1.

²⁸ Merced County Association of Governments, 2018, *Regional Transportation Plan Sustainable Communities Strategy for Merced County*.

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Impact GHG-3: Implementation of the General Plan 2042 would not meet the long-term greenhouse gas emission reduction goal under Executive Order (EO) S-03-05 or substantial progress toward carbon neutrality goals under EO B-55-18.

Mitigation Measure GHG-3: 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 year 2050 GHG reduction goal set by EO S-03-05 and substantial progress toward the State's carbon neutrality goals of EO B-55-18, and would ensure that the City is tracking and monitoring the city's GHG emissions. However, given the growth in population and employment within the city and the magnitude of emissions reductions needed to achieve the GHG-reduction target, GHG emissions are considered *significant and unavoidable*.

HAZARDS AND HAZARDOUS MATERIALS

4.9 HAZARDS AND HAZARDOUS MATERIALS

This chapter describes the potential hazards and hazardous materials impacts associated with the adoption and implementation of the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential related impacts related to hazards and hazardous materials, and identifies General Plan policies that could minimize any potentially significant impacts. A discussion of wildland fire hazards is provided in Chapter 4.18, *Wildfire*, of this Draft Environmental Impact Report (EIR).

4.9.1 ENVIRONMENTAL SETTING

4.9.1.1 REGULATORY FRAMEWORK

Federal Regulations

United States Environmental Protection Agency

The United States Environmental Protection Agency (USEPA) is the primary federal agency that regulates hazardous materials and waste. In general, the USEPA works to develop and enforce regulations that implement environmental laws enacted by Congress. The agency is responsible for researching and setting national standards for a variety of environmental programs, delegating the responsibility for issuing permits, and monitoring and enforcing compliance to states and Native American tribes. USEPA programs promote handling hazardous wastes safely, cleaning up contaminated land, and reducing waste volumes through such strategies as recycling. California falls under the jurisdiction of USEPA Region 9. Under the authority of the Resource Conservation and Recovery Act (RCRA) and in cooperation with State and tribal partners, the USEPA Region 9 Waste Management and Superfund Divisions manage programs for site environmental assessment and cleanup, hazardous and solid waste management, and underground storage tanks.

United States Department of Transportation

The United States Department of Transportation (USDOT) has the regulatory responsibility for the safe transportation of hazardous materials between states and internationally. The USDOT regulations govern all means of transportation, except for those packages shipped by mail, which are covered by United States Postal Service regulations. The federal RCRA of 1976 (described subsequently) imposes additional standards for the transport of hazardous wastes.

Occupational Safety and Health Administration

The Occupational Safety and Health Administration (OSHA) requires specific training for hazardous materials handlers, provision of information to employees who may be exposed to hazardous materials, and acquisition of material safety data sheets from materials manufacturers. The material safety data

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sheets describe the risks, as well as proper handling and procedures, related to specific hazardous materials. Employee training must include response and remediation procedures for hazardous materials releases and exposures.

Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984

Federal hazardous waste laws are generally promulgated under the RCRA, as amended by the Hazardous and Solid Waste Amendments of 1984. These laws provide for the “cradle to grave” regulation of hazardous wastes. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed. The Department of Toxic Substances Control (DTSC) is responsible for implementing the RCRA program as well as California’s own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law. Under the Certified Unified Program Agency (CUPA) program, California Environmental Protection Agency (CalEPA) has in turn delegated enforcement authority to the Merced County Department of Public Health, Division of Environmental Health (DEH) for State law regulating hazardous waste producers or generators in Los Banos.

Comprehensive Environmental Response, Compensation, and Liability Act and the Superfund Amendments and Reauthorization Act of 1986

Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as “Superfund,” on December 11, 1980. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. The Superfund Amendments and Reauthorization Act (SARA) amended the CERCLA on October 17, 1986. SARA stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites, required Superfund actions to consider the standards and requirements found in other State and federal environmental laws and regulations, provided new enforcement authorities and settlement tools, increased State involvement in every phase of the Superfund program, increased the focus on human health problems posed by hazardous waste sites, encouraged greater citizen participation in making decisions on how sites should be cleaned up, and increased the size of the trust fund to \$8.5 billion.

Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act (EPCRA), also known as SARA Title III, was enacted in October 1986. This law requires State and local governments to plan for chemical emergencies. Reported information is then made publicly available so that interested parties may become informed about potentially dangerous chemicals in their community. EPCRA Sections 301 through 312 are administered by USEPA’s Office of Emergency Management. USEPA’s Office of Information Analysis and Access implements the EPCRA Section 313 program. In California, SARA Title III is implemented through

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California Accidental Release Prevention (CalARP) program. Under the CUPA program, CalEPA has in turn delegated enforcement authority to the Merced County DEH for CalARP.

Hazardous Materials Transportation Act

The USDOT regulates hazardous materials transportation under Title 49 of the Code of Federal Regulations. State agencies that have primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans). The California State Fire Marshal's Office has oversight authority for hazardous materials liquid pipelines. The California Public Utilities Commission has oversight authority for natural gas pipelines in California. These agencies also govern permitting for hazardous materials transportation.

Federal Response Plan

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies and other resource providers, including the American Red Cross, that: (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of State and local governments overwhelmed by a major disaster or emergency; (2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a Presidential declaration of a major disaster or emergency. The Federal Response Plan is part of the National Response Framework, which was most recently updated on March 22, 2008.

The Stafford Act

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) of 1988 authorizes federal government assistance for emergencies and disasters when State and local capabilities are exceeded. The Stafford Act forms the statutory authority for most federal disaster response activities, especially as they relate to the Federal Emergency Management Agency (FEMA) and FEMA programs.

National Response Framework

The 2016 National Response Framework, published by the United States Department of Homeland Security, is a guide for the nation to respond to all types of disasters and emergencies. This framework describes specific authorities and best practices for managing incidents that range from serious local or large-scale terrorist attacks to catastrophic natural disasters. In addition, the 2016 National Response Framework describes the principles, roles, and responsibilities, and coordinating structures for responding to an incident, and further describes how response efforts integrate with those of the other mission areas.

HAZARDS AND HAZARDOUS MATERIALS

State Regulations

California Environmental Protection Agency

One of the primary State agencies that regulate hazardous materials is CalEPA. CalEPA is authorized by the USEPA to enforce and implement certain federal hazardous materials laws and regulations. The California DTSC, a department of the CalEPA, protects California and its residents from exposure to hazardous waste, primarily under the authority of the RCRA and the California Health and Safety Code.¹ The DTSC requirements include the need for written programs and response plans, such as Hazardous Materials Business Plans. The DTSC programs include dealing with aftermath clean-ups of improper hazardous waste management, evaluation of samples taken from sites, enforcement of regulations regarding use, storage, and disposal of hazardous materials, and encouragement of pollution prevention.

California Division of Occupational Safety and Health

Like OSHA at the federal level, the California Division of Occupational Safety and Health (CalOSHA) is the responsible State-level agency for ensuring workplace safety. CalOSHA assumes primary responsibility for the adoption and enforcement of standards regarding workplace safety and safety practices. In the event that a work site is contaminated, a Site Safety Plan must be crafted and implemented to protect the safety of workers. Site Safety Plans establish policies, practices, and procedures to prevent the exposure of workers and members of the public to hazardous materials originating from the contaminated site or building.

California Office of Emergency Services

The California Office of Emergency Services (Cal OES) was established as part of the Governor's Office on January 1, 2009. It was created pursuant to Assembly Bill (AB) 38, which merged the duties, powers, purposes, and responsibilities of the former Governor's Emergency Management Agency with those of the Governor's Office of Homeland Security. Cal OES is responsible for the coordination of overall State agency response to major disasters in support of local government. The agency is responsible for ensuring the State's readiness to respond to and recover from all hazards—natural, humanmade, emergencies, and disasters—and for assisting local governments in their emergency preparedness, response, recovery, and hazard mitigation efforts.

California Department of Transportation and California Highway Patrol

Caltrans and the CHP are the two State agencies that have primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies. Caltrans manages more than 50,000 miles of California's highways and freeways, provides intercity rail services, permits

¹ Hazardous Substance Account, Chapter 6.5 (Section 25100 et seq.) and the Hazardous Waste Control Law, Chapter 6.8 (Section 25300 et seq.) of the Health and Safety Code.

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more than 400 public-use airports and special-use hospital heliports, and works with local agencies. Caltrans is also the first responder for hazardous material spills and releases that occur on highways, freeways, and intercity rail lines. The CHP enforces hazardous materials and hazardous waste labeling and packing regulations designed to prevent leakage and spills of materials in transit and to provide detailed information to cleanup crews in the event of an accident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of the responsibility of the CHP, which conducts regular inspections of licensed transporters to ensure regulatory compliance. In addition, the State of California regulates the transportation of hazardous waste originating or passing through the State. Common carriers are licensed by the CHP, pursuant to Section 32000 of the California Vehicle Code. This section requires licensing every motor (common) carrier who transports, for a fee, in excess of 500 pounds of hazardous materials at one time and every carrier, if not for hire, who carries more than 1,000 pounds of hazardous material of the type requiring placards. Common carriers conduct a large portion of the business in the delivery of hazardous materials.

California Building Code

The State of California provided a minimum standard for building design through the California Building Code (CBC), which is found in Title 24, Part 2 of the California Code of Regulations. The CBC is updated every three years. It is generally adopted on a jurisdiction-by-jurisdiction basis and may be subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local city and county building officials for compliance with the typical fire safety requirements of the CBC, including the installation of sprinklers in all high-rise buildings and the establishment of fire-resistance standards for fire doors and building materials. Section 414 of the CBC includes requirements for buildings and structures occupied for the manufacturing, processing, dispensing, use, or storage of hazardous materials.

California Health and Safety Code

California Health and Safety Code Chapter 6.95 and California Code of Regulations Title 19, Section 2729 set out the minimum requirements for business emergency plans and chemical inventory reporting. These regulations require businesses to provide emergency response plans and procedures, training program information, and a hazardous material chemical inventory disclosing hazardous materials stored, used, or handled on-site. A business that uses hazardous materials or a mixture containing hazardous materials must establish and implement a business plan if the hazardous material is handled in certain quantities.

California Emergency Management Agency

The California Emergency Management Agency (CalEMA) was established as part of the Governor's Office on January 1, 2009, created by AB 38 (Nava), which merged the duties, powers, purposes, and responsibilities of the former Governor's Office of Emergency Services with those of the Governor's Office of Homeland Security. The CalEMA is responsible for the coordination of overall State agency response to major disasters in support of local government. The agency is responsible for ensuring the state's readiness to respond to and recover from all hazards – natural, humanmade, emergencies, and disasters –

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and for assisting local governments in their emergency preparedness, response, recovery, and hazard mitigation efforts.

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped fire threat potential throughout California.² CAL FIRE ranks fire threat based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The rankings include no fire threat, moderate, high, and very high fire threat. Additionally, the CAL FIRE produced the *2018 Strategic Fire Plan for California*, which contains goals, objectives, and policies to prepare for and mitigate for the effects of fire on California's natural and built environments.³

California Fire Code

California Code of Regulations, Title 24, also known as the California Building Standards Code, contains the California Fire Code (CFC), included as Part 9. Updated every three years, the CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Similar to the CBC, the CFC is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions.

Regional Regulations

Central Valley Regional Water Quality Control Board

The Porter-Cologne Water Quality Control Act established the State Water Resources Control Board (SWRCB) and divided the state into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board (RWQCB). The Central Valley Region (Region 5) is the RWQCB that regulates water quality in the EIR Study Area. The Central Valley RWQCB has the authority to require groundwater investigations when the quality of groundwater or surface waters of the state is threatened, and to require remediation actions, if necessary.

San Joaquin Valley Air Pollution Control District

The San Joaquin Valley Air Pollution Control District (SJVAPCD) has primary responsibility for control of air pollution from sources other than motor vehicles and consumer products (which are the responsibility of CalEPA and California Air Resources Board [CARB]). The SJVAPCD is responsible for preparing attainment plans for non-attainment criteria pollutants, control of stationary air pollutant sources, and the issuance of

² CalFIRE, <https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>, accessed on January 31, 2022.

³ CalFIRE, *2018 Strategic Fire Plan for California*, <https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/fire-plan/>, accessed on January 31, 2022.

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permits for activities including demolition and renovation activities affecting asbestos-containing materials (District Regulation VII, Rule 7050).

Merced County Division of Environmental Health

The routine management of hazardous materials in California is administered under the Unified Hazardous Waste and Hazardous Materials Management Program (Unified Program), and most of the City of Los Banos hazardous materials programs are administered and enforced under the Unified Program. CalEPA has granted responsibilities to the Merced County DEH for implementation and enforcement of hazardous material regulations under the Unified Program as a CUPA. The DEH also enforces additional hazardous materials storage requirements in accordance with the Merced County Hazardous Materials Storage Ordinance and Toxic Gas Ordinance.

Under authority from the RWQCB, Merced County DEH implements the Local Oversight Program to oversee the investigation and remediation of leaking underground storage tank (LUST) sites in Merced County, including the City of Los Banos. Businesses storing hazardous materials over threshold quantities are required to submit Hazardous Materials Business Plans (HMBPs) to the DEH. A HMBP must include measures for safe storage, transportation, use, and handling of hazardous materials. A HMBP must also include a contingency plan that describes the facility's response procedures in the event of a hazardous materials release.

Merced County Department of Public Health

The Merced County Department of Public Health (DPH) is responsible for preparing the County's Emergency Operations Plan (County EOP). The most recent County EOP was adopted by the County Board of Supervisors in December 2017. The County EOP identifies the range and degree of probable emergency situations, the full range of emergency services that may be needed under multiple scenarios, and the timing and coordination of emergency service delivery, including recovery operations. The County EOP also establishes an emergency organization and assigns tasks to all responsible service agencies so that they may be applied effectively where and when they are needed.

Merced Municipal Airport Land Use Compatibility Plan

The Merced County Airport Land Use Compatibility Plan (Merced County ALUCP) was prepared in accordance with the California State Aeronautics Act (Public Utilities Code Section 21670 et seq.).⁴ The most recent Merced County ALUCP, adopted by the Merced County Airport Land Use Commission (Merced County ALUC) on June 21, 2012, contains the individual Compatibility Plans for each of the five public-use airports in Merced County. The five airports include Castle Airport, Gustine Municipal Airport, Los Banos Municipal Airport, Merced Regional Airport, and Turlock Municipal Airport. As adopted by the

⁴ Merced County, Airport Land Use Commission, 2012. *Merced County Airport Land Use Compatibility Plan*, June 21, accessed at <https://www.co.merced.ca.us/406/Airport-Land-Use-Commission> on February 22, 2022.

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Merced County ALUC, the basic function of the Merced County ALUCP is to promote compatibility between each airport and the land uses that surround them to the extent that these areas have not already been devoted to incompatible uses. The Merced County ALUCP accomplishes this function through establishment of a set of compatibility criteria applicable to new development around each airport. The Merced County ALUCP serves as a tool for use by the Merced County ALUC in fulfilling its duty to review airport and adjacent land use development proposals. Neither the Merced County ALUCP nor the ALUC have authority over existing land uses or over operation of the airport.

Chapter 2, *General Policies*, of the Merced County ALUCP, includes a description of the review process for potential future development at and near each airport, the compatibility criteria for land use actions, the compatibility criteria for each airport plan, and the specific compatibility criteria for noise, safety, airspace protection, overflight, and special conditions for land use actions. Chapter 3, *Individual Airport Policies and Compatibility Maps*, includes applicable policies and compatibility maps for each of the five airports. Chapters 4 through 8 provide background data on each of the five airports. Specifically, Chapter 6, *Background Data: Los Banos Municipal Airport and Environs*, includes an overview and a description of the existing airfield system, airport plan status, and aircraft activity for the Los Banos Municipal Airport.

Each local agency has jurisdiction over land uses within an ALUC's planning area, referred to as the Airport Influence Area (AIA). Each local agency is required by State law to modify its general plan and any affected specific plans to be consistent with the Merced County ALUCP. The AIA includes all areas surrounding the airport that are affected by noise and safety considerations. The AIA for the Los Banos Municipal Airport is shown on Figure 3-7, *Los Banos Airport Land Use Compatibility Zones*, in Chapter 3, *Project Description*, of this Draft EIR. The AIA is made up of the following five compatibility zones that limit the types of development that can occur in the AIA to prevent hazards to users of the site and to avoid hazards to air navigation.

- **Zone A. Runway Protection Zone and within Building Restriction Line:** The noise impact and safety risk level are very high in this zone.
- **Zone B1. Inner Approach/Departure Area and Adjacent to Runway:** The noise impact and safety risk level are high in this zone.
- **Zone B2. Inner Turning Zone and Outer Approach/Departure Area:** The noise impact is high and safety risk level is moderate in this zone.
- **Zone C. Extended Approach/Departure Area and Primary Traffic Patterns:** The noise impact and safety risk level are moderate in this zone.
- **Zone D. Other Overflight Areas:** The noise impact and safety risk level are moderate in this zone.

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Local Regulations

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives pertaining to hazards and hazardous materials. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions related to hazards and hazardous materials are included in Title 4, *Public Safety*, and Title 8, *Building Regulations*, as follows:

- **Chapter 3, *Fire Prevention Code*.** This chapter includes provisions to prevent fire and protect the residents and visitors of Los Banos from fire-related hazards.
 - **Section 4-3.01, *Adoption of the CFC 2019 Edition*.** This section adopts the CFC in its entirety, subject, however, to the amendments, additions, and deletions set forth in this chapter. The Los Banos Fire Prevention Code is intended to regulate and govern the safeguarding of life and property from fire and explosion hazards arising from the storage, handling, and use of hazardous substances, materials, and devices, and from conditions hazardous to life or property in the occupancy of buildings in Los Banos.
- **Chapter 1, *Building Codes*.** This chapter adopts the following codes as described:
 - **Section 8-1.01, *Adoption of the CBC 2019 Edition*.** This section adopts the CBC, in its entirety, subject, however, to the amendments, additions, and deletions set forth in this chapter. The CBC includes several provisions regarding the storage and disposal of hazardous materials. Such provisions include storage of flammable and combustible liquids in aboveground tanks and the storing and dispensing of liquified petroleum gas and other flammable liquids and gases.

4.9.1.2 EXISTING CONDITIONS

Hazardous Materials Sites

California Government Code Section 65962.5 requires the CalEPA to compile, maintain, and update specified lists of hazardous material release sites. CEQA Section 21092.6 requires the lead agency to consult the lists compiled pursuant to Government Code Section 65962.5 to determine whether the project and any alternatives are identified on any of the following lists:

- **USEPA National Priorities List.** The USEPA's National Priorities List includes all sites under the USEPA's Superfund program, which was established to fund cleanup of contaminated sites that pose risks to human health and the environment.
- **USEPA CERCLIS and Archived Sites.** The USEPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) includes a list of 15,000 sites nationally identified as hazardous sites. This would also involve a review for archived sites that have been removed from CERCLIS due to No Further Remedial Action Planned status.

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- **USEPA RCRIS (RCRA Info).** The Resource Conservation and Recovery Act Information System (RCRIS or RCRA Info) is a national inventory system about hazardous waste handlers. Generators, transporters, handlers, and disposers of hazardous waste are required to provide information for this database.
- **DTSC Cortese List.** The DTSC maintains the Hazardous Waste and Substances Sites (Cortese) list as a planning document for use by the State and local agencies to comply with the CEQA requirements in providing information about the location of hazardous materials release sites. This list includes the Site Mitigation and Brownfields Reuse Program Database.
- **DTSC HazNet.** The DTSC uses this database to track hazardous waste shipments.
- **SWRCB LUSTIS.** Through the Leaking Underground Storage Tank Information System (LUSTIS), the SWRCB maintains an inventory of Underground Storage Tanks (USTs) and LUSTs, which tracks unauthorized releases.

The required lists of hazardous material release sites are commonly referred to as the “Cortese List,” named after the authoring legislator. Because the statute was enacted more than 20 years ago, some of the provisions refer to agency activities that were conducted many years ago and are no longer being implemented and, in some cases, the information required in the Cortese List does not exist. Those requesting a copy of the Cortese Lists are now referred directly to the appropriate information resources contained on internet websites hosted by the boards or departments referenced in the statute, including DTSCs online EnviroStor database and the SWRCB’s online GeoTracker database. These two databases include hazardous material release sites, along with other categories of sites or facilities specific to each agency’s jurisdiction. A search of the online databases on February 2, 2022, identified 81 sites within the EIR Study Area. Of the 81 sites, 27 are designated as active and the remaining 54 sites are designated as “closed” or “completed – case closed,” indicating that they have been investigated and/or remediated to the satisfaction of the lead responsible agency (i.e., RWQCB, DTSC, Merced County DEH) based on land use at the time of closure. The 27 active hazardous materials sites are shown in Table 4.9-1, *Active Hazardous Materials Sites*, and on Figure 4.9-1, *Active Hazardous Material Sites*. The remaining 54 sites are included with a complete list of 81 sites is in Appendix E, *Hazardous Materials Data*, of this Draft EIR. The majority of the active sites are classified as school investigation sites and are associated with metals, pesticides, and gasoline and diesel.

Schools

As described in Chapter 4.3, *Air Quality*, of this Draft EIR, some land uses are considered more sensitive to airborne hazardous materials than others due to the types of population groups or activities involved. Because sensitive population groups include children, the California Environmental Quality Act (CEQA) requires an evaluation of hazardous emissions or handling hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school, private or public. As discussed in Chapter 4.14, *Public Services, Parks, and Recreation*, Los Banos is served by the Los Banos Unified School District (LBUSD), which has eight elementary schools, two junior high schools, one high school, and one continuation high school all within the EIR Study Area. In addition, there are a number of other private schools not operated by LBUSD. It is likely that LBUSD will build new schools over the buildout of the proposed project.

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TABLE 4.9-1 ACTIVE HAZARDOUS MATERIALS SITES

MAP ID	SITE NAME	ADDRESS	SITE TYPE	POTENTIAL CONTAMINANTS	CLEANUP STATUS
Envirostor Cleanup Program Sites ^a					
1	Arcadian High School	B Street/Ward Rd	School Investigation	Metals, Pesticides	No Further Action
2	Badger Flat Middle School	Badger Flat Rd/Prairie Springs Dr	School Investigation	Metals, Pesticides	No Further Action
3	Elementary School #2/Ranchwood Property	18761 Willmont Rd	School Investigation	Metals, Pesticides	No Further Action
4	Former Union Pacific Railroad Right-of-Way	Between 2 nd St and Mercey Springs	Evaluation	None Specified	Refer: Local Agency
5	Los Banos Community School	Texas Ave/H St	School Investigation	None Specified	No Action Required
6	Los Banos ES #2 Expansion Site	Willmott Ave/Las Palmas St	School Investigation	Arsenic, Pesticides	No Action Required
7	Los Banos Middle School #2	Pioneer Rd/I St Alignment	School Investigation	Arsenic, Pesticides	No Further Action
8	Los Banos Municipal Airport	I St/Airport Rd	Evaluation	Pesticides, Unspecified Aqueous Solution	Inactive – Needs Evaluation
9	Mercey Springs Elementary School	16570 Mercey Springs Rd	School Investigation	Metals, Pesticides	No Further Action
10	Old Los Banos Dump	Parkwood Ave/Ranchwood Ave	State Response	Lead	Certified
11	R. M. Miano Elementary School	B St/Santa Rita St	School Investigation	None Specified	No Action Required
12	Special Education/Child Development Facility	22240 State Highway 152	School Investigation	Arsenic, Pesticides	No Further Action
13	Trent Pump Station	21425 Ingomar Rd	Voluntary Cleanup	Benzene (B), Toluene (T), Ethylbenzene (E), Xylene (X), Petroleum-containing waste	Inactive – Needs Evaluation
14	Vineyard School Site	Overland Rd	School Investigation	Arsenic, Lead	No Further Action
GeoTracker Sites ^b					
15	Becker Estate, Former Becker Oil Term., Los Banos	1330 Pacheco Pass Blvd	Cleanup Program Site	Diesel, Gasoline, Methyl tert-Butyl Ether (MTBE), Tert-Butyl Alcohol (TBA), Other Fuel Oxygenates	Open - Remediation
16	Former Trent Pump Station	21425 Ingomar Rd	Cleanup Program Site	Crude Oil	Open – Site Assessment
17	Lister Ag Aviation	P.O. Box 31	Cleanup Program Site	Fertilizer	Open – Inactive

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TABLE 4.9-1 ACTIVE HAZARDOUS MATERIALS SITES

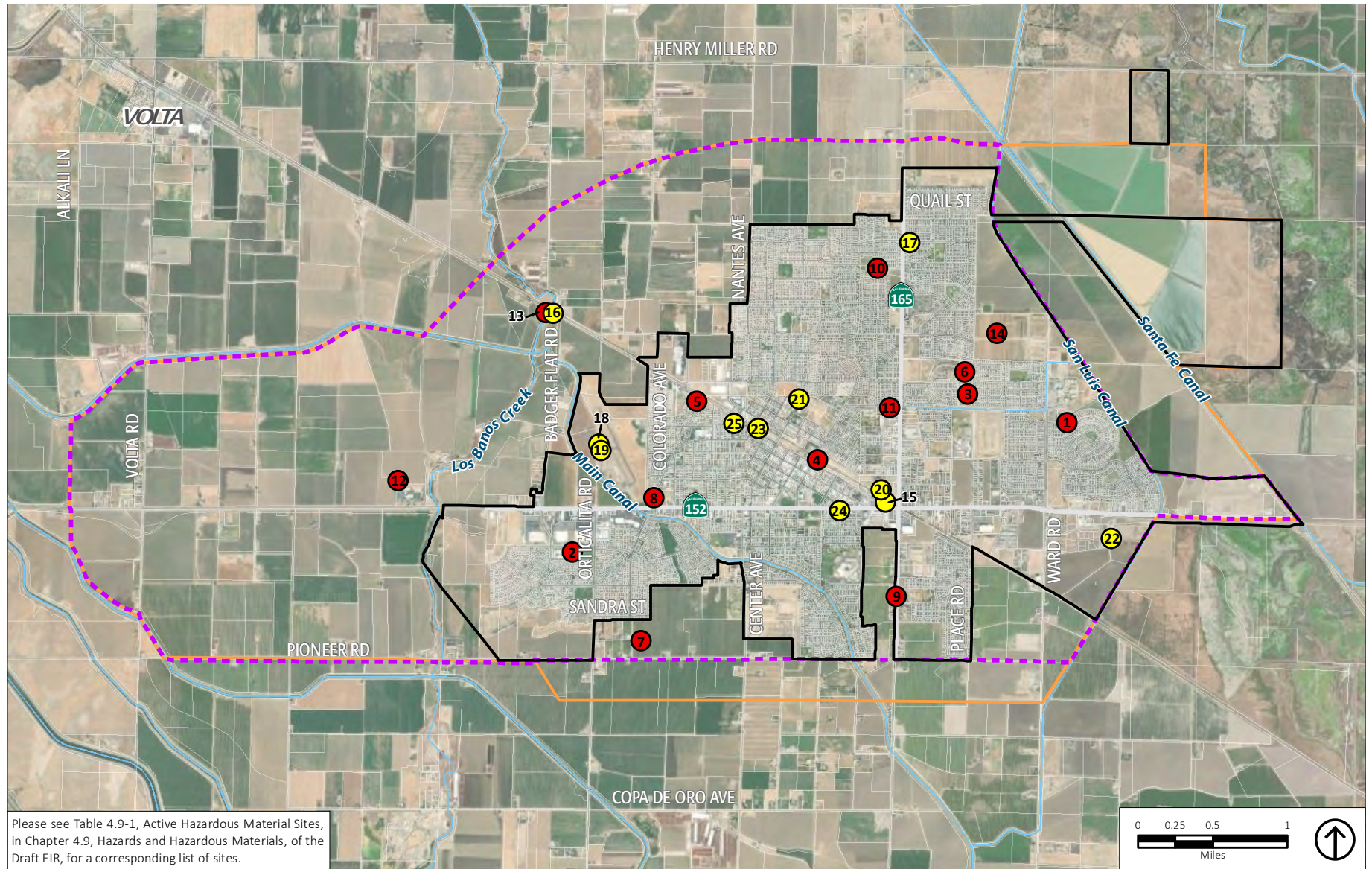
MAP ID	SITE NAME	ADDRESS	SITE TYPE	POTENTIAL CONTAMINANTS	CLEANUP STATUS
18	Los Banos Airport	None West I St/Hwy 152	Cleanup Program Site	Pesticides, Metals, Fumigants	Open – Inactive
19	Los Banos Airport	1 Mile West of Los Banos	Cleanup Program Site	Pesticides, Herbicides	Open – Inactive
20	Los Banos Gateway Center, LLC – 1159 G Street Site	1159 G St	Cleanup Program Site	Arsenic	Open – Site Assessment
21	Merced County Spring Fair	360 D St	LUST Cleanup Site	Gasoline	Open – Eligible For Closure
22	Meza Brothers, Inc.	2657 E Pacheco Blvd	LUST Cleanup Site	Diesel, Gasoline, PCE	Open – Eligible For Closure
23	Pacheco Oil	740 Second St	Cleanup Program Site	Arsenic, Diesel	Open – Site Assessment
24	Santos Texaco #2	1009 E Pacheco Blvd	LUST Cleanup Site	Diesel, Gasoline, Waste Oil, Motor Oil, Hydraulic Oil, Lubricating Oil	Open – Site Assessment
25	Tosco Bulk Plant #0382	101 H St	LUST Cleanup Site	Diesel, Gasoline, PCE	Open – Site Assessment

Sources:

a. Department of Toxic Substances Control, 2022, EnviroStor, <https://www.envirostor.dtsc.ca.gov/public/>, accessed January 31, 2022

b. State Water Resources Control Board, 2022, GeoTracker, <https://geotracker.waterboards.ca.gov/>, accessed January 31, 2022.

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- City Limit
- Proposed Urban Growth Boundary (UGB)
- Proposed Sphere of Influence (SOI)
- GeoTracker Sites
- EnviroStor Cleanup Program Sites

Figure 4-9.1
Active Hazardous Material Sites

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Airport Hazards

The Los Banos Municipal Airport is within the city limits of Los Banos in the western part of the city. The airport is west of downtown and directly adjacent to the Central California Irrigation District Main Canal; it is between SR-152 and Ingomar Grade Road. It covers 125 acres and contains one paved runway 3,800 feet long. The airport is owned by the City of Los Banos and operated through the Public Works Department.

The airport was developed in 1940 and has historically been used for general aviation, which includes all aviation activities other than commercial passenger flights, commuter/air taxi, and military uses. General aviation activity typically includes single-engine and small twin-engine aircraft holding six or fewer people. The Los Banos Municipal Airport is the third largest and third most active airport in the county. The Federal Aviation Administration reported that as of 2017, an average of 21 planes were based at the Los Banos Municipal Airport over the past 5 years, and the airport saw a total of 16,000 “aviation activities,” which could include local users, travelers passing through, emergency operations, etc. As with the current General Plan, the City is considering the relocation of the airport to a site outside the EIR Study Area to reduce potential conflicts with surrounding land uses. There are no private airstrips in the vicinity of the locations where future development could occur as a result of implementation of the proposed project.

As previously described in Section 4.9.1.1, *Regulatory Framework*, under subheading “Merced Municipal Airport Land Use Compatibility Plan,” a large portion of Los Banos and its current and proposed Sphere of Influence (SOI) are within the ALUC’s AIA (i.e., planning area). The AIA includes all areas surrounding the airport that are affected by noise and safety considerations and is organized by five land use compatibility zones that rank the level of noise and safety hazards from very high to low. The ACLUP also establishes height restrictions for structures, and the area subject to these height restrictions is slightly greater than the AIA. Pursuant to Map LOS 2, *Airspace Protection Map*, of the Merced County ALUCP, based on the current airport location, most of the Los Banos city limits and SOI should not exceed the height limits of between 271 and 471 feet above mean sea level depending on the location of the structure.⁵

Emergency Response and Evacuation Planning Areas

As described in Section 4.9.1.1, *Regulatory Framework*, the EIR Study Area is within the planning area of the Merced County EOP and the Multi-jurisdictional Multi Hazard Mitigation Plan.

4.9.2 STANDARDS OF SIGNIFICANCE

Impacts related to wildland fires are fully discussed in Chapter 4.18, *Wildfire*, of this Draft EIR. Therefore, the following standard is not discussed in this chapter.

- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

⁵ Merced County, Airport Land Use Commission, 2012. *Merced County Airport Land Use Compatibility Plan*, June 21, Chapter 3, *Individual Airport Policies and Compatibility Maps*, page 3-12, accessed at <https://www.co.merced.ca.us/406/Airport-Land-Use-Commission> on February 22, 2022.

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Implementation of the proposed project would result in a significant impact related to hazards and hazardous materials if it would:

1. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.
2. 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.
3. Emit hazardous emissions or handle hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.
4. Be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
5. For a project located within 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, result in a safety hazard or excessive noise for people residing or working in the project area.
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
7. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to hazards and hazardous materials.

4.9.3 IMPACT DISCUSSION

HAZ-1	Implementation of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.
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Implementation of the proposed project would facilitate potential new development, including residential, mixed-use, commercial, industrial, agricultural, and recreational uses, within Los Banos. Hazardous materials would be routinely used, transported, and handled throughout the city of Los Banos. Residential land uses could use common cleaning products, building maintenance products, paints and solvents, fertilizers and pesticides used in landscaping and yard care, along with other similar items. In general, these potentially hazardous materials would not be of the type to occur in sufficient quantities to pose a significant hazard to public health and safety or to the environment.

Companies in the Industrial or Commercial land use designation of the proposed General Plan 2042 could use, store, or generate hazardous materials for research, manufacturing, cleaning, or other commercial uses, and the proposed project would include agricultural uses within the EIR Study Area that may also use or transport hazardous materials such as pesticides. These commercial, industrial, and agricultural activities are subject to a variety of federal, state, and local laws, policies, and regulations, as described in Section 4.9.1.1, *Regulatory Framework*. All hazardous materials to be transported must remain in compliance with USDOT regulations. Potential future development in the EIR Study Area would be subject to regulatory programs such as those overseen by RWQCB and DTSC. Nonresidential development that

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would require the use of hazardous materials regulated by federal, state, regional, and local agencies would issue permits for the use of the hazardous materials, which would be monitored and routinely updated by the responsible agency depending on the type of material. These agencies also require applicants for development of potentially contaminated properties to perform investigation and cleanup if the site is found to be contaminated with hazardous substances. In addition, Merced County DEH has responsibility in Los Banos for the implementation and enforcement of hazardous material regulations as a CUPA. The DEH also enforces additional hazardous materials storage requirements in accordance with Merced County Hazardous Materials Storage Ordinance and Toxic Gas Ordinance.

Potential future development that would introduce hazardous materials to a site, or that would generate hazardous waste, would be regulated pursuant to federal, state, regional, and local laws. Compliance with these regulations would minimize the potential for a significant adverse effect on the environment due to the routine use, transport, and disposal of hazardous materials. In addition, the General Plan 2042 Land Use (LU) Element and Safety and Noise (S) Element contain goals and policies that require local planning and development decisions to require best practices for the handling of hazardous materials as part of development. The following goals and policies, once adopted, would serve to further minimize exposure to hazardous materials from routine transport, use, or disposal in the EIR Study Area and ensure that new development would not create a significant hazard to the public or environment through routine transport, use, or handling of hazardous materials.

- **Policy LU-P2.15.** Permit childcare centers in all districts, subject to appropriate permitting requirements, and develop criteria for incentives for childcare facilities, including density bonuses according to State law.
- **Policy LU-P7.11.** Prohibit gas stations or other potentially polluting uses at the commercial area immediately south of the future SR-152 bypass interchange with SR-165.
- **Goal S-3.** Protect Los Banos' ecosystem and residents from harm resulting from the improper production, use, storage, disposal, or transportation of hazardous materials.
 - **Policy S-P3-1.** Apply provisions on the Merced County Hazardous Waste Management Plan to decisions involving hazardous materials in Los Banos as appropriate.
 - **Policy S-P3-2.** Discourage the placement or expansion of businesses producing, using, or storing hazardous materials within a quarter mile of schools, hospitals, and residential neighborhoods. If hazardous materials facilities are within a quarter-mile, require effective mitigation measures.
 - **Policy S-P3-3.** Require that any proposed new development on identified or suspected hazardous materials sites address hazardous materials through the preparation of Phase I or Phase II hazardous materials studies for each identified site as part of the design phase for each project.
 - **Policy S-P3-4.** Require remediation and cleanup of sites contaminated with hazardous substances.

As part of the City's project approval process, potential future development and redevelopment would be required to comply with existing federal, state, regional, and local regulations, including the proposed General Plan goals and policies that have been prepared to minimize impacts related to hazardous materials. Compliance with these regulations would minimize the risk of an adverse effect on the

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environment, through the routine use, transport, and disposal of hazardous materials, and therefore impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

HAZ-2	Implementation of the proposed project would not 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.
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The proposed project would facilitate potential future development, including residential, mixed-use, and commercial uses, within Los Banos. Some of the new development could occur on properties that possibly are contaminated and inactive, undergoing evaluation, and/or undergoing corrective action, as indicated in Table 4.9.1, *Active Hazardous Materials Sites*. Construction of new buildings and improvements could have the potential to release potentially hazardous soil-based materials into the environment during site grading and excavation operations. Likewise, demolition of existing structures could potentially result in release of hazardous building materials (e.g., asbestos, lead paint, etc.) into the environment. Use of hazardous materials on newly developed properties after construction could potentially include cleaning solvents, fertilizers, pesticides, and other materials used in the regular maintenance and operation of the proposed uses. In addition, as described in impact discussion HAZ-1, companies in the Industrial or Commercial land use designation of the proposed General Plan 2042 could use, store, or generate hazardous materials for research, manufacturing, cleaning, or other commercial uses, and the proposed General Plan 2042 would allow agricultural uses within the EIR Study Area that may also use or transport hazardous materials such as pesticides.

Potential future development as a result of the proposed project would be required to comply with existing regulations as part of the City's project approval process, described in Section 4.9.1.1, *Regulatory Framework*, and compliance with the Stormwater Pollution Prevention Plan and Best Management Practices required for the proposed project (see Chapter 4.10, *Hydrology and Water Quality*, for additional details), as well as the proposed General Plan 2042 goals and policies listed under impact discussion HAZ-1, would ensure potential future development under the proposed General Plan 2042 would not 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; therefore, impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

HAZ-3	Implementation of the proposed project would not emit hazardous emissions or handle hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.
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As discussed in Section 4.9.1.2, *Existing Conditions*, the LBUUSD has public schools throughout the city and, there are a number of other private schools dispersed throughout the city. Accordingly, it is possible that implementation of the proposed General Plan 2042 could result in potential future development that

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would involve hazardous materials, either through construction or operation of new development, within 0.25 miles of an existing or proposed school. In terms of new public schools that may result from implementation of the proposed project, DTSC's School Property Evaluation and Cleanup Division is responsible for assessing, investigating, and cleaning-up proposed school sites. The Division's goal is to ensure that proposed school properties are 'free' of contamination or that they have been 'cleaned' to a level that protects the students and staff who will occupy the new school. School sites that will receive State funding for acquisition or construction are required to go through an environmental review and cleanup process under DTSC's oversight.

As described under impact discussions HAZ-1 and HAZ-2, while some potential future development under the proposed General Plan 2042 could be reasonably expected to handle hazardous materials or generate hazardous emissions, the storage, use, and handling of these materials would be subject to existing federal, State, and local regulations. Potential future development would be required to comply with existing regulations as described in Section 4.9.1.1, *Regulatory Framework*, and reiterated in impact discussions HAZ-1 and HAZ-2, including General Plan goals and policies that have been prepared to minimize impacts as a result of hazardous materials. These regulations would ensure requirements regarding use or transport of hazardous materials are met prior to construction, which includes buffer zones between schools and hazardous materials sites. Therefore, impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

HAZ-4	Implementation of the proposed project would not be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
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As discussed in Section 4.9.1.2, *Existing Conditions*, under the subheading *Hazardous Materials Sites*, a total of 81 hazardous materials sites are listed on databases compiled pursuant to Government Code Section 65962.5 and 27 of those sites are considered active sites. The remaining 54 sites are listed as "closed" or "completed – case closed," indicating that they have been investigated and/or remediated to the satisfaction of the lead responsible agency (i.e., RWQCB, DTSC, Merced County DEH) based on land use at the time of closure.

The proposed General Plan 2042 would facilitate new development and redevelopment including residential, mixed-use, commercial, parks, and recreational open spaces, within the city of Los Banos. Some of the potential future development could occur on properties that are included in the databases listed in Table 4.9-1, *Active Hazardous Material Sites*, and shown on Figure 4.9-1, *Active Hazardous Material Sites*. As discussed in impact discussions HAZ-1 through HAZ-3, construction on a site listed in the database could result in the release of potentially hazardous soil-based materials into the environment during site grading and excavation operations. Further, demolition of existing structures could potentially result in the release of hazardous building materials (e.g., asbestos, lead-based paint) into the environment. Use of hazardous materials on newly developed properties after construction could

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potentially include cleaning solvents, fertilizers, pesticides, and other materials used in the regular maintenance and operation of future development.

As described in impact discussions HAZ-1 through HAZ-3, potential future development that would occur under implementation of the proposed General Plan 2042 would be required to comply with all federal, State, regional, and local regulations regarding the safe handling, transport, disposal, and use of hazardous materials. Further, the proposed General Plan 2042 includes specific goals and policies that would require land planning and development decisions to reduce the impacts that potential future development with known hazardous materials, or the use of such materials, could have on the environment and the public. However, because hazardous materials sites exist in the EIR Study Area, as indicated in Table 4.9-1, it is possible that future development could occur on a designated hazardous materials site, which could result in the direct contact, inhalation, or ingestion of hazardous materials that could potentially cause adverse health impacts to construction workers, future site inhabitants, and nearby sensitive receptors. The preparation of project-specific management plans and studies would require mitigation that would protect construction workers, future site inhabitants, and nearby sensitive receptors.

The severity of health effects would depend on the contaminant(s), concentration, use of personal protective equipment during construction, and duration of exposure. Site specific Environmental Site Management Plans (ESMP) for locations with known contamination would summarize soil and groundwater analytical data collected on the project site during past investigations; identify management options for excavated soil and groundwater, if contaminated media are encountered during deep excavations; and identify monitoring, irrigation, or other wells requiring proper abandonment in compliance with local, State, and federal laws, policies, and regulations. The ESMP would include measures for identifying, testing, and managing soil and groundwater suspected of or known to contain hazardous materials. The ESMP would:

- Provide procedures for evaluating, handling, storing, testing, and disposing of soil and groundwater during project excavation and dewatering activities, respectively;
- Describe required worker health and safety provisions for all workers potentially exposed to hazardous materials in accordance with State and federal worker safety regulations; and
- Designate personnel responsible for implementation of the ESMP.

For sites with potential residual contamination in soil or groundwater that are planned for redevelopment with an overlying occupied building, a soil vapor intrusion assessment would indicate the potential for significant vapor intrusion into an occupied building, project design shall include vapor controls or source removal, as appropriate, in accordance with regulatory agency requirements. Soil vapor mitigations or controls could include vapor barriers, passive venting, and/or active venting.

General Plan 2042 Policy S-P4.3, listed in impact discussion HAZ-1, would require the preparation of site-specific evaluation for sites with known contamination, the disturbance and release of hazardous materials during earthwork activities, if present, could pose a hazard to construction workers, nearby receptors, and the environment through the completion of Phase I or Phase II hazardous materials studies for each identified site as part of the design phase for each project. The completion of these studies would result in site-specific mitigation as required, including preparing ESMPs and soil vapor intrusion assessments. Compliance, with applicable Federal, State and local laws and regulations regarding cleanup

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and reuse of a listed hazardous materials site described in Section 4.9.1.1, *Regulatory Framework*, the proposed General Plan policies listed under HAZ-1, would ensure potential future development under the proposed General Plan 2042 would not create a significant hazard to the public or the environment; therefore, impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

HAZ-5	Implementation of the proposed project would not, for a project located within 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, result in a safety hazard or excessive noise for people residing or working in the project area.
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As discussed in Section 4.9, *Regulatory Framework*, under subheading “Merced Municipal Airport Land Use Compatibility Plan,” the current Merced County ALUCP was adopted by the Merced County ALUC in 2012 and addresses issues related to compatibility between airport operations and surrounding proposed land use development, considering safety of persons on the ground and in flight and sets limits for noise and height. The EIR Study Area is within areas of the ALUCP that limits land use and building height to minimize hazardous impacts to prevent hazards to users of the site and to avoid hazards to air navigation.

As with the current General Plan, the City is considering the relocation of the airport to a site outside the EIR Study Area. Future development near the airport may place people or structures at risk for a variety of airport-related hazards and result in inconsistencies with the land use policies adopted by the Merced County ALUC. However, the planned relocation of the airport would eliminate any future potential impact. However, until this time, all potential future development in the Merced County ALUC AIA is required to be reviewed by the Merced County ALUC to ensure consistency with the Merced County ALUCP which would reduce this impact to a level that is less than significant.

In addition, the proposed Land Use (LU) Element, Safety and Noise (S) Element, and the Circulation (C) Element contain a goal, policies, and an action that require local planning and development decisions to require best practices that would not result in incompatible land uses with airport operations. The following goals and policies, once adopted, would serve to further minimize exposure to airport hazardous in the EIR Study Area.

- **Policy LU-P7.6.** Prepare and plan for maximally beneficial potential future redevelopment of the Los Banos Airport site.
- **Policy LU-P7.6.** Require developers to mitigate fully the environmental effects of development at or near the airport site following any relocation of the airport (particularly the potential impacts to Los Banos Creek riparian corridor and the City’s water supply) by clustering development to maximize open space.
- **Policy LU-P7.8.** Until such time as the airport is relocated, ensure that proposed residential, commercial, and industrial uses near the airport be consistent with Los Banos Municipal Airport Plan and the Merced County Airport Land Use Compatibility Plan.

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- **Goal S-8.** Strive to achieve an acceptable noise environment for the present and future residents of Los Banos.
 - **Policy S-P8.1.** Use the community noise level exposure standards, shown in Figure 7-9 [of the proposed General Plan 2042], as review criteria for new land uses.
 - **Policy S-P8.2.** Require a noise study and mitigation measures for all projects that have noise exposure greater than “normally acceptable” levels based on Figure 7-7 [of the proposed General Plan]. Require that new multifamily and single-family housing projects, hotels, and motels exposed to a Community Noise Equivalent Level (CNEL) of 60 decibels (dB) or greater have a detailed acoustical analysis describing how the project will provide an interior CNEL of 45 dB or less, pursuant to Title 24, Part 2, of the California Code of Regulations. These measures may include, but are not limited to, the following actions:
 - Screen and control noise sources, such as parking and loading facilities, outdoor activities, and mechanical equipment;
 - Increase setbacks for noise sources from adjacent dwellings;
 - Install fences, walls, and landscaping that serve as noise buffers;
 - Use forced-air mechanical ventilation and soundproofing materials and double-glazed windows, or a combination thereof; and
 - Control hours of operation, including deliveries and trash pickup, to minimize noise impacts.
 - **Policy S-P8.5.** Protect especially sensitive uses, including schools, hospitals, and senior care facilities, from excessive noise.
 - **Action C-A6.2.** Work with the County to update the Airport Land Use Compatibility Plan to accommodate a relocated airport and its operations.

The proposed General Plan 2042 goal and policies listed above would serve to further ensure that development would not interfere with any airport land use plan or otherwise create an airport-related safety hazard in the EIR Study Area. Risk to people residing or working in the EIR Study Area therefore would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

HAZ-6	Implementation of the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
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As discussed in Section 4.9.1.1, *Regulatory Framework*, the Merced County DPH is responsible for coordinating agency response to disasters or other large-scale emergencies in the city of Los Banos with assistance from the Los Banos Police Department and Los Banos Fire Department. The Merced County Sheriff’s Department and Merced County Fire Department are responsible for emergency response services in the unincorporated areas surrounding the city. The Merced County EOP establishes policy direction for emergency planning, mitigation, response, and recovery activities within the city. The Merced County EOP addresses interagency coordination, procedures to maintain communications with

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county and State emergency response teams, and methods to assess the extent of damage and management of volunteers.

Compliance with applicable federal, State, and local laws and regulations regarding emergency response or emergency evacuation as described in Section 4.9.1.1, *Regulatory Framework*, of this chapter would ensure potential future development under the proposed General Plan 2042 would not interfere with an adopted emergency response plan, or emergency evacuation plan. In addition, the proposed Safety and Noise (S) Element contains a goal and policies that require local planning and development decisions to require appropriate firefighting infrastructure as part of development, including emergency access for emergency vehicles and minimum water pressure for sustained fire suppression. Furthermore, the proposed Safety and Noise Element contains other policies to improve response times and increase the resiliency of critical-use structures within the EIR Study Area.

- **Goal S-4.** Protect Los Banos' residents and businesses from potential wildfire and structural fire hazards through data-driven decision-making and community planning efforts..
 - **Policy S-P4.1.** Require adequate firefighting infrastructure and access for emergency vehicles in all new development, including adequate street width, vertical clearance on new streets, high-visibility street signs in all conditions, and minimum water pressure necessary for sustained fire suppression.
- **Goal S-5.** Maintain and enhance the City's capacity for law enforcement.
 - **Policy S-P5.1.** Promote crime prevention strategies and provide a high level of response to incidents. Reduce crime in Los Banos through a comprehensive strategy that includes rapid response to calls and regular patrols in neighborhoods with above-average crime rates.
- **Goal S-6.** Minimize the risk of personal injury, property damage, and environmental damage from both natural and human-made disasters and improve natural disaster response capabilities through a variety of emergency preparedness measures.
 - **Policy S-P6.1.** Increase the resilience of important or critical-use structures (such as hospitals, schools, fire, police, cooling centers, and public assembly facilities, substations, and utilities) through input during site selection and a comprehensive investigation into existing fire, flooding, and geotechnical conditions and to ensure that these facilities are operable both mid- and post-disaster events that affect Los Banos.

Compliance with applicable federal, State, and local laws and regulations regarding emergency response or emergency evacuation, as described in Section 4.9.1.1, *Regulatory Framework*, and the proposed General Plan 2042 goals and policies listed above that require adequate access and prompt response time, would ensure future development under the proposed General Plan would not interfere with an adopted emergency response plan, or emergency evacuation plan and impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

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HAZ-7	Implementation of the proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to hazards and hazardous materials.
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As discussed in Chapter 4, *Environmental Evaluation*, of this Draft EIR, this EIR takes into account potential future development under the proposed project, in combination with impacts from projected growth in Merced County. This chapter analyzes potential cumulative hazardous impacts that could arise from a combination of the development of the proposed project together with the regional growth in the immediate vicinity of the EIR Study Area.

As discussed previously, development allowed by the proposed project would not result in significant impacts from the increased use of hazardous household materials. The proposed project would not interfere with implementation of emergency response plans. In addition, potential project-level impacts associated with hazards and hazardous materials would be further reduced through compliance with proposed General Plan policies and actions, other local, regional, State, and federal regulations. Since impacts associated with hazardous materials, are, by their nature, focused on specific sites or areas, the less-than-significant impacts within the EIR Study Area from the proposed project would not contribute to a cumulative increase in hazards in the immediate vicinity of the EIR Study Area or throughout the region. Therefore, the potential for cumulative impacts associated with hazards and hazardous materials would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

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4.10 HYDROLOGY AND WATER QUALITY

This chapter describes the potential hydrology and water quality impacts associated with the adoption and implementation of the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential hydrology and water quality impacts, and identifies General Plan policies that could minimize any potentially significant impacts.

4.10.1 ENVIRONMENTAL SETTING

4.10.1.1 REGULATORY FRAMEWORK

Federal Regulations

Clean Water Act

The federal Water Pollution Control Act (or Clean Water Act [CWA]) is the principal statute governing water quality. It establishes the basic structure for regulating discharges of pollutants into the waters of the United States and gives the US Environmental Protection Agency (USEPA)—or in the case of California, the State Water Board and Regional Water Quality Control Boards—authority to implement pollution control programs. The statute's goal is to restore, maintain, and preserve the integrity of the nation's waters. The CWA regulates direct and indirect discharge of pollutants; sets water quality standards for all contaminants in surface waters; and makes it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a permit is obtained under its provisions. The CWA mandates permits for wastewater and stormwater discharges; requires states to establish site-specific water quality standards; and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The CWA also funded the construction of sewage treatment plants and recognized the need for planning to address nonpoint sources of pollution. Section 402 of the CWA requires a permit for all point source (a discernible, confined, and discrete conveyance, such as a pipe, ditch, or channel) discharges of any pollutant into waters of the United States.

Under federal law, the USEPA has published water quality regulations under Volume 40 of the Code of Federal Regulations (40 CFR). Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question and (2) criteria that protect the designated uses. Section 304(a) requires the USEPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use.

In California, the authority to either grant water quality certification or waive the requirement is delegated by the State Water Resources Control Board (SWRCB) to its nine Regional Water Quality Control Boards (RWQCBs). Additionally, the SWRCB and its RWQCBs are the designated authority to identify beneficial uses and adopt applicable water quality objectives. When water quality does not meet CWA standards

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and compromises designated beneficial uses of a receiving water body, Section 303(d) of the CWA requires that water body be identified and listed as “impaired”. Once a water body has been designated as impaired, a Total Maximum Daily Load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards, with a factor of safety included. Once established, the TMDL allocates the loads among current and future pollutant sources to the water body.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States, including discharges from municipal separate storm sewer systems (MS4s). 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; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Under the NPDES Program, all facilities that discharge pollutants into waters of the US are required to obtain an NPDES permit. Requirements for stormwater discharges are also regulated under this program. In California, the NPDES permit program is administered by the SWRCB through the nine RWQCBs. Los Banos lies within the jurisdiction of Central Valley RWQCB (Region 5) and is subject to the waste discharge requirements of the General Permit for Stormwater Discharges for Phase II Small MS4s Order No. 2013-0001-DWQ (as amended by Order No. WQ 2015-0133-EXEC, Order No. WQ 2016-0069-EXEC, Order No. WQ 2017-XXXX-DWQ, Order No. WQ 2018-0001-EXEC, and Order No. WQ 2018-0007-EXEC). The City of Los Banos is a traditional small MS4, as well as many other cities and towns within Merced County.

Under Provision E.12 of the NPDES Permit, the co-permittees use their planning authorities to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address both soluble and insoluble stormwater runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects. This goal is to be accomplished primarily through the implementation of low impact development techniques.

Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA also issues Flood Insurance Rate Maps (FIRMs) that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection is established by FEMA. FEMA’s minimum level of flood protection for new development is the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year. According to FEMA maps of the City and EIR Study Area, there are no areas within a 100-year floodplain

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Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act provides the basic authority for the United States Fish and Wildlife Service (USFWS) to evaluate impacts to fish and wildlife from proposed water resource development projects. This Act requires that all federal agencies consult with the USFWS, the National Marine Fisheries Service, and State wildlife agencies (i.e., the California Department of Fish and Wildlife or CDFW) for activities that affect, control, or modify waters of any stream or bodies of water. Under this Act, the USFWS has responsibility for reviewing and commenting on all water resources projects. For example, the USFWS would provide consultation to the USACE regarding issuance of a Section 404 permit.

If a project may result in the “incidental take” of a listed species, an incidental take permit is required. An incidental take permit allows a developer to proceed with an activity that is legal in all other respects but that results in the “incidental taking” of a listed species. A Habitat Conservation Plan (HCP) must also accompany an application for an incidental take permit. The purpose of an HCP is to ensure that the effects of the permitted action on listed species are adequately minimized and mitigated.

State Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Water Code Sections 13000 et seq.) is the basic water quality control law for California. This Act established the SWRCB and divided the State into nine regional basins, each under the jurisdiction of a RWQCB. The SWRCB is the primary State agency responsible for the protection of California’s water quality and groundwater supplies. The RWQCBs carry out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a water quality control plan or basin plan that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region’s ground and surface water, and local water quality conditions and problems. As described above, Los Banos is within the jurisdiction of the Central Valley RWQCB (Region 5).

The Porter-Cologne Act also authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements (WDRs), NPDES permits, Section 401 water quality certifications, or other approvals. Other State agencies with jurisdiction over water quality regulation in California include the California Department of Health Services (DHS) for drinking water regulations, the CDFW, and the Office of Environmental Health and Hazard Assessment (OEHHA).

State Water Resources Control Board

In California, the SWRCB has broad authority over water quality control issues for the State. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the federal government under the CWA. Other State agencies with jurisdiction over water quality regulation in California include the DHS for drinking water regulations, the California Department of Pesticide Regulation (DPR), the CDFW, and the OEHHA.

Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt water quality control plans for all areas in the region

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and establish water quality objectives in the plans. The Central Valley RWQCB regulates surface water and groundwater quality in Region 5. The RWQCB's jurisdiction includes the Sacramento and San Joaquin River drainage basins and covers about one fourth the total area of the state.

State Water Quality Control Board's Trash Amendment

On April 7, 2015, the State Water Quality Control Board (SWQCB) 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.¹

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 trash treatment control systems on all catch basins no later than December 2, 2030.²

State Water Resources Control Board Construction General Permit

In California, the SWRCB has broad authority over water quality control issues for the State. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the federal government under the CWA.

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 (2009-0009-DWQ) as amended by 2010-0014-DWQ and 2012-0006-DWQ. Under the terms of the permit, applicants must file Permit Registration Documents (PRDs) with the SWRCB prior to the start of construction. The PRDs include a Notice of Intent (NOI), risk assessment, site map, Stormwater Pollution Prevention Plan (SWPPP), annual fee, and a signed certification statement. The PRDs are now 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 (BMPs) 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 visual monitoring program, a chemical monitoring program for nonvisible pollutants if there is a failure of the BMPs, and a

¹ State Water Resources Control Board, April 7, 2015, *Amendment to the Water Quality Control Plan for the Ocean Waters of California to Control Trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, https://www.waterboards.ca.gov/water_issues/programs/trash_control/docs/01_final_sed.pdf.

² State Water Resources Control Board, January 7, 2019, *Storm Water Program - Trash Implementation Program*, https://www.waterboards.ca.gov/water_issues/programs/stormwater/trash_implementation.html.

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sediment-monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Some sites also require implementation of a Rain Event Action Plan. A new Construction General Permit is expected to be issued by the SWRCB in July 2022.³

State Water Resources Control Board 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.

Sustainable Groundwater Management Act of 2014

On September 16, 2014, a three-bill legislative package was signed into law, composed of AB 1739, SB 1168, and SB 1319, collectively known as the Sustainable Groundwater Management Act (SGMA).⁴ 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, in groundwater basins that are designated as medium and high priority, local public agencies and groundwater sustainability agencies (GSAs) must assess conditions in their local groundwater basins and then prepare groundwater sustainability plans (GSPs). Los Banos is within the Delta-Mendota Subbasin, which has been designated as a high-priority groundwater basin and is in critical overdraft.

The City is one of ten GSAs that are part of the San Joaquin River Exchange Contractors (SJREC) GSP Group. A GSP for the group was prepared in December 2019 and has been adopted.⁵ The Department of Water Resources (DWR) is currently reviewing the plan for adequacy. GSAs for basins in critical overdraft must begin to implement the GSP by January 31, 2020, and must achieve the sustainability goals by January 31, 2040.

California Water Code Section 13751: Water Wells

Section 13751 of the Water Code requires a Well Completion Report (WCR) to be completed by each person who digs, bores, or drills a water well, cathodic protection well, groundwater monitoring well, or geothermal heat exchange well or abandons or modifies an existing well. The WCR should be filed with the DWR within 60 days of the date that construction, alteration, abandonment, or destruction of a well is

³ State Water Resources Control Board, 2022, *Proposed Statewide Construction Stormwater General Permit Reissuance*, https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/docs/proposed/notice_cgp_033022.pdf

⁴ Department of Water Resources, Groundwater Information Center, http://www.water.ca.gov/groundwater/groundwater_management/legislation.cfm, accessed on February 5, 2015.

⁵ San Joaquin River Exchange Contractors GSP Group, 2019. *Groundwater Sustainability Plan for the San Joaquin River Exchange Contractors GSP Group in the Delta-Mendota Subbasin (5-022.07)*

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completed.⁶ Completed WCRs are sent to and maintained at the DWR regional office that serves the area where the well is located.

California Fish and Wildlife

The CDFW protects streams, water bodies, and riparian corridors through the streambed alteration agreement process under Section 1601 to 1606 of the California Fish and Game Code. The Fish and Game Code stipulates that it is “unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake” without notifying the CDFW, incorporating necessary mitigation, and obtaining a streambed alteration agreement. CDFW’s jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover.

Water Conservation in Landscaping Act of 2006

The Water Conservation in Landscaping Act includes the State of California’s Model Water Efficient Landscape Ordinance (MWELO), which requires cities and counties to adopt landscape water conservation ordinances. 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. State law requires all land use agencies, which includes cities and counties, to adopt a WELO that is at least as efficient as the MWELO prepared by DWR. The 2015 revisions to the MWELO improve water savings in the landscaping sector by promoting efficient landscapes in new developments and retrofitted landscapes. The revisions increase 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. New development projects that include landscape areas of 500 square feet or more are subject to the MWELO. Rehabilitated landscape project with an area equal to or greater than 2,500 square feet are also subject to the MWELO. This applies to residential, commercial, industrial, and institutional projects that require a permit, plan check, or design review.⁷

The City of Los Banos adopts the MWELO Ordinance in the LBMC Title 9, Chapter 6, *City of Los Banos Water Efficient Landscape Ordinance*.

Regional Regulations

Central Valley RWQCB

The City of Los Banos is within the jurisdiction of the Central Valley RWQCB (Region 5). The Central Valley RWQCB addresses region-wide water quality issues through the creation and triennial update of the *Water Quality Control Plan* for the Central Valley Region (Basin Plan). The Basin Plan was adopted in 1975 and most recently amended in 2018. The Basin Plan designates beneficial uses, establishes water quality

⁶ California Department of Water Resources, 2022. Well Completion Reports, accessed on May 17, 2022 at <https://water.ca.gov/Programs/Groundwater-Management/Wells/Well-Completion-Reports>.

⁷ California Department of Water Resources, 2015. Model Water Efficient Landscape Ordinance, accessed at [https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I55B69DB0D45A11DEA95CA4428EC25FA0&originationContext=documenttoc&transitionType=Default&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I55B69DB0D45A11DEA95CA4428EC25FA0&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)), on May 6, 2022.

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objectives, and contains implementation programs and policies to achieve those objectives for all waters designated in the Basin Plan.⁸ The Central Valley RWQCB also administers the Phase II Small MS4 permit for Merced County and the municipalities within the County, including the City of Los Banos. Additional information regarding this permit is provided in the previous NPDES section under *Federal Regulations*.

In 2014, the Central Valley RWQCB issued WDRs for irrigated lands to growers within the Western San Joaquin River Watershed. The WDRs were last revised in October 2021. These WDRs (Order No. R5-2014.002-11) supersede the previous Conditional Waivers (Order Nos. R5-2006-0053 and R5-2003-0105). The applicability of these WDRs for the City of Los Banos is that the agreements between the City and CCID and GWD to discharge stormwater into their canals required compliance with the former Conditional Waivers, which required water quality monitoring, data collection, and reporting. The new WDRs may require additional water quality monitoring and reporting by the City. The San Joaquin Valley Drainage Authority, also known as the Western San Joaquin River Watershed Coalition, is acting as the third party to represent growers in the Western San Joaquin River Watershed and develop the required programs.

Westside-San Joaquin Integrated Regional Water Management Plan

The Westside-San Joaquin Integrated Regional Water Management Plan (IRWMP) was prepared by the San Luis and Delta-Mendota Water Authority (SLDMWA). The region it covers encompasses approximately 2,000 square miles of land on the western side of the San Joaquin Valley, including the City of Los Banos.⁹ The IRWMP provides a blueprint to guide regional water resource management and addresses issues such as water supply reliability, surface and groundwater quality protection, protection of aquatic, riparian, and watershed resources, flood protection, and drainage. Projects implemented through the IRWMP include water supply and reliability, habitat protection and improvement, water quality, agricultural water management, urban water management, flood management, and public education and outreach programs.

Westside-San Joaquin Stormwater Resource Plan

The Westside-San Joaquin Regional Stormwater Resource Plan (SWRP) identifies and prioritizes multiple-benefit stormwater projects that can best address the regional stormwater management goals in the SWRP planning area.¹⁰ The SLDMWA is the Regional Water Management Group for the Westside-San Joaquin Region and Central California Irrigation District (CCID) and Grassland Water District (GWD) are member agencies. The SWRP is intended to be a living document where projects will be updated and added beyond the initial SWRP development timeframe. Stormwater capture for groundwater basin recharge was identified as a regional watershed priority to increase water supply. A list of 26 eligible projects is provided in the SWRP, including the Santa Fe Canal Water Storage and Groundwater Recharge B Project which would convert existing agricultural land to water storage and recharge basins. The 400-acre

⁸ Central Valley RWQCB, 2018. *Water Quality Control Plan (Basin Plan) for the Central Valley Region*, https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf, accessed on May 17, 2022.

⁹ San Luis & Delta-Mendota Water Authority, 2019. *Westside-San Joaquin Integrated Regional Water Management Plan*. Prepared by Woodard and Curran. Dated January 2019.

¹⁰ San Luis & Delta-Mendota Water Authority, 2020. *Westside-San Joaquin Stormwater Resource Plan*. Dated May 2020.

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site is one mile north of Banos adjacent to and on the north side of the Santa Fe Canal and adjacent to and on the west side of Highway 165 (Mercey Springs Road).

Merced County Multi-Jurisdictional Local Hazard Mitigation Plan

The Merced County Office of Emergency Services, together with several jurisdictions in Merced County, including the City of Los Banos, prepared the *Multi-Jurisdictional Hazard Mitigation Plan* (MJHMP). The MJHMP, last adopted in 2014, is a guide to hazard mitigation throughout Merced County and serves as a tool to help decision-makers direct hazard mitigation activities and resources. In the context of the MJHMP, mitigation is an action that reduces or eliminates long-term risk to people and property from hazards, including flooding and sea-level rise.

The County released a draft update to the MJHMP in 2021 (herein referred to as the “2021 Draft MJHMP”). The hazard mitigation plan for Los Banos is Annex E of the 2021 Draft MJHMP.

Local Regulations

Los Banos Storm Drainage System Master Plan

The latest Storm Drainage System Master Plan (SDSMP) for the City of Los Banos was prepared in 2008 and amended in March 2010 to include the changes in land use and planning boundaries that would be consistent with the City’s 2030 General Plan. The area evaluated in the SDSMP has essentially the same boundaries as the EIR Study Area for the proposed project but the plan projected a much higher population of 90,400 people by 2030. The SDSMP describes the existing storm drain system, capacity evaluation and proposed improvements, and prioritization of future capital improvement projects to meet the projected increase in population demand. The future system improvements include the installation of numerous storm detention basins in the upper watershed of subbasins, which attenuate peak flows. Some of the improvements described in the SDSMP have since been implemented, including improvements to the storm drains in the downtown area so that stormwater runoff no longer drains to the City’s wastewater collection system. This also reduced the potential for flooding downtown.

Los Banos Low-Impact Development (LID) Manual

The City is in the process of drafting a Low-Impact Development (LID) Manual, which will guide new development and redevelopment projects in implementing Provision E.12 of the Phase II Small MS4 permit, which requires post-construction stormwater BMPs. Provision E.12 requires single-family homes that create and/or replace 2,500 square feet of impervious surface or small projects that create and/or replace between 2,500 and 5,000 square feet of impervious surface to implement site design measures to reduce runoff. Projects that create and/or replace 5,000 square feet or more of impervious surface must implement site design, source control, runoff reduction, and stormwater treatment measures. Projects that create and/or replace one acre or more of impervious surfaces must implement hydromodification management, which requires that post-project runoff does not exceed the pre-project flow rate for the 2-year, 24-hour storm event. Prior to the issuance of grading permits, the Public Works Department will require completion and submittal of a Stormwater Management Checklist for review and approval to

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ensure that these requirements are met. Implementation of these stormwater measures will reduce the amount of stormwater runoff that is ultimately discharged to the CCID and GWD canals.

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives that pertain to stormwater in Los Banos. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions are found in Title 6, *Sanitation and Health*, and Title 9, *Planning and Zoning*:

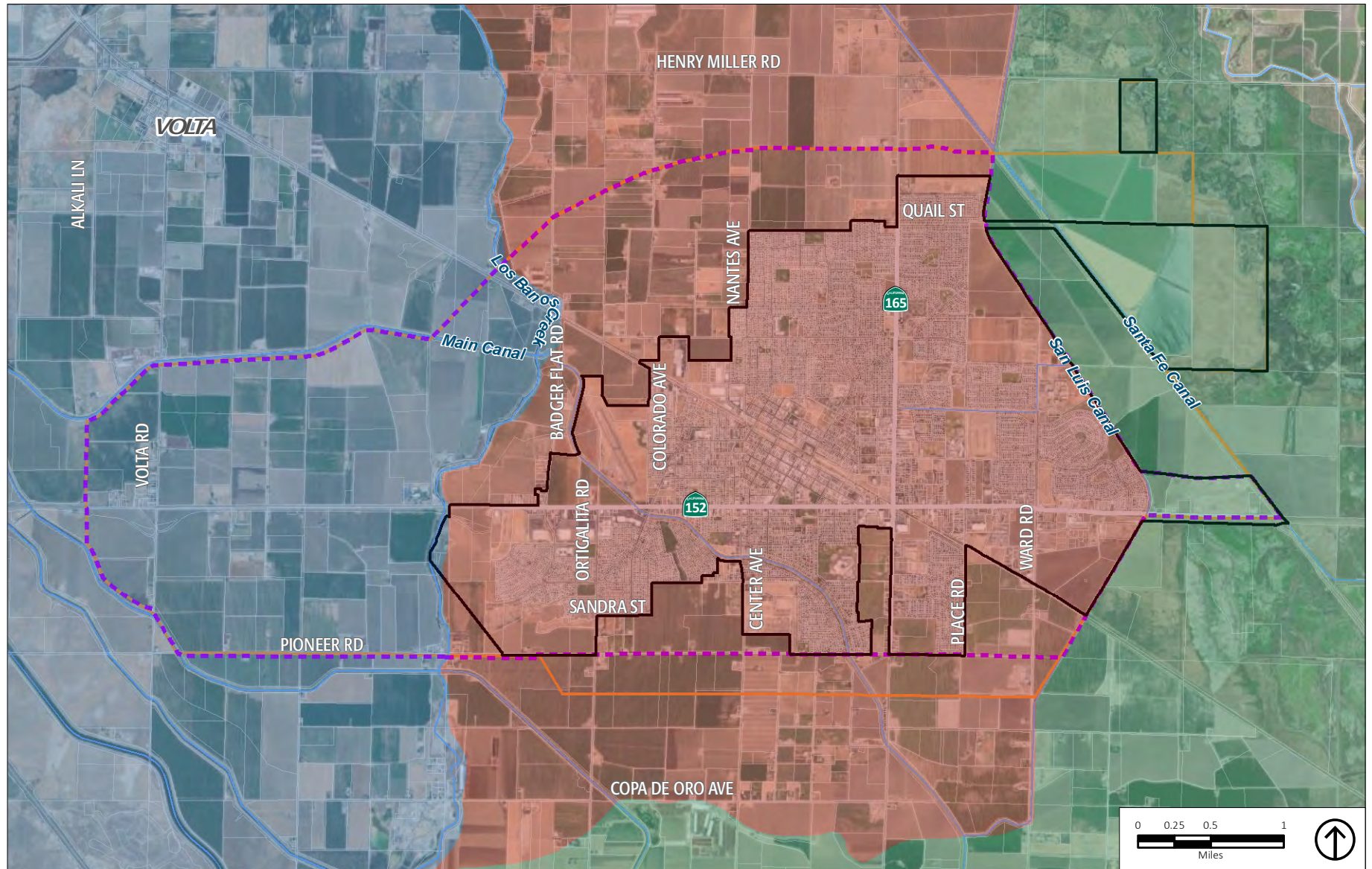
- **Title 4, Chapter 9, *Floodplain Management*.** This chapter describes the City's rules and requirements to minimize public and private losses due to flood conditions in specific areas.
- **Title 6, Chapter 13, *Los Banos Urban Stormwater Management and Discharge Control*.** This chapter describes the City's rules and requirements to reduce the risk of non-stormwater discharge and/or pollutant discharge to the City's stormwater system, as well as SWPPP and BMP compliance.
- **Title 9, Chapter 2, Article 13, *Storm Drainage Development Impact Fees*.** This chapter establishes development fees for storm drain system for undeveloped areas that are proposed for new development.
- **Title 9, Chapter 3, Article 8, *High Density Residential District (R-3)*.** This chapter establishes landscaping requirements and necessity for a runoff study of the area to be developed.
- **Title 9, Chapter 6, *City of Los Banos Water Efficient Landscape Ordinance*.** Section 9-6.06 establishes the State MWELO requirements which increase water efficiency standards for new and retrofitted landscapes through more efficient irrigation systems, greywater usage, and on-site stormwater capture.

4.10.1.2 EXISTING CONDITIONS

Regional Hydrology

The City of Los Banos and the EIR Study Area are within the Middle San Joaquin-Lower Chowchilla Watershed. This watershed is further divided into three subwatersheds, as shown on Figure 4.10-1, *Subwatersheds*. Most of the city and EIR Study Area is within the Mud Slough-San Joaquin River subwatershed. A small portion of the city and EIR Study Area east of the San Luis Canal is within the Mud Slough subwatershed and the portion of the EIR Study Area west of Los Banos Creek is within the Lower Los Banos Creek subwatershed. Surface water in the region surrounding the City flows to the northeast toward the San Joaquin River which ultimately flows to the California Delta approximately 70 miles north of Los Banos.

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Source: Stanford, 2013; Placemarks, 2022.

- City Limit
- Proposed Urban Growth Boundary (UGB)
- Proposed Sphere of Influence (SOI)
- Lower Los Banos Creek
- Mud Slough - San Joaquin River
- Mud Slough

Figure 4.10-1
Subwatersheds

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Local Hydrology

The topography of the EIR Study Area is relatively flat, with gentle slopes toward the northeast. Stormwater runoff within the EIR Study Area is largely conveyed to canals via the City's storm drain system. The City's Public Works Department operates and maintains the storm drain system that is throughout the city, which consists of over 79 miles of storm drains ranging in size from 6 to 66 inches in diameter. It also operates 12 stormwater pump stations throughout the City.¹¹

The City streets serve as collectors for most of the stormwater, and a network of drainage ditches and storm drains convey the runoff to detention basins. The runoff from the detention basins is then conveyed via gravity or pump stations to the CCID and GWD canals, although a few neighborhoods have direct discharge to the canals. The original agreements between CCID and GWD regarding stormwater discharge from the City into their canals were renegotiated in 2005 and 2007 to provide sufficient capacity for stormwater runoff as development within the City increased. Currently, the City discharges to CCID's Main Canal and GWD's San Luis Canal and Santa Fe Canal. A more detailed discussion of the storm drain system is provided in Chapter 4.16, *Utilities and Service Systems*, of this Draft EIR.

Groundwater

Los Banos is within the Delta-Mendota Subbasin, which has been designated as a high priority groundwater basin and is in critical overdraft. The City produces its water supply solely from 13 active groundwater wells and distributes it to its residential, commercial, institutional and industrial customers.¹² The City works closely with CCID and GWD to monitor and manage groundwater within the EIR Study Area. The City and DWR monitor water levels in area wells monthly, with the wells largely ranging from 150 to 300 feet in depth.¹³ A more detailed discussion of the groundwater supply system is provided in Chapter 4.16, *Utilities and Service Systems*, of this Draft EIR.

Groundwater recharge occurs primarily from deep percolation of applied irrigation water and rainfall. The rate of recharge depends on the permeability of the surface and subsurface materials. Treated wastewater from the wastewater treatment plant (WWTP) is also discharged into pastureland to replenish the underground water supply. Additionally, the SJREC GSP Group is implementing groundwater sustainability projects that would increase groundwater recharge by 50,000 acre-feet per year (AFY), including the Los Banos Creek Diversion Facility, Los Banos Creek Recharge and Recovery Program, and the Los Banos Creek Storage Project. Additional details on the groundwater basin and sustainability goals are provided in the *Water Supply Assessment* (see Appendix I, *Water Supply Assessment*, of this Draft EIR).

Climate

The EIR Study Area experiences a semiarid, Mediterranean climate, which consists of hot, dry summers with low humidity and very mild winters. The area receives about 9.1 inches of rain annually, which is

¹¹ Carollo Engineers, 2010. *City of Los Banos Master Plan for Storm Drainage System*.

¹² City of Los Banos, 2021. *2020 Urban Water Management Plan*.

¹³ City of Los Banos, 2021. *2020 Urban Water Management Plan*.

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primarily recorded during the five-month stretch between December and March.¹⁴ The winter average low temperature is about 38 degrees Fahrenheit and the average summer high temperature is about 95 degrees Fahrenheit.¹⁵

Water Quality

Surface water quality is affected by point-source and nonpoint-source pollutants. Point source pollutants are emitted at a specific point, such as a pipe, and nonpoint-source pollutants are typically generated by surface runoff from diffuse sources, such as streets, paved areas, and landscaped areas. Point-source pollutants are controlled with pollutant discharge regulations or water discharge requirements. Nonpoint-source pollutants are more difficult to monitor and control, although they are important contributors to surface water quality in urban areas.

Stormwater runoff pollutants vary based on land use, topography, the amount of impervious surface, the amount and frequency of rainfall, and irrigation practices. Runoff in developed areas typically contains oil, grease, and metals accumulated in streets, driveways, parking lots, and rooftops, as well as pesticides, herbicides, particulate matter, nutrients, animal waste, and other oxygen-demanding substances from landscaped areas. The highest pollutant concentrations usually occur at the beginning of the wet season during the “first flush,” when early rainfall flushes out pollutants that have accumulated on hardscape surfaces during the preceding dry months.

The Central Valley RWQCB monitors surface water quality through implementation of the Basin Plan and designates beneficial uses for surface water bodies and groundwater within Merced County and Los Banos. The Basin Plan does not list any surface water bodies with beneficial uses within the EIR Study Area but does state that all groundwater in Region 5 is considered as suitable or potentially suitable for municipal and domestic water supply (MUN), agricultural supply (AGR), industrial service supply (IND), and industrial process supply (PRO).¹⁶

In addition to the establishment of beneficial uses and water quality objectives, another approach to improve water quality is a watershed-based methodology that focuses on all potential pollution sources and not just those associated with point sources. If a body of water does not meet established water quality standards under traditional point source controls, it is listed as an impaired water body under Section 303(d) of the CWA. For 303(d) listed water bodies, a limit is established that defines the maximum amount of pollutants that can be received by that water body. Listed impaired water bodies in the EIR Study Area and their associated pollutants of concern are presented in Table 4.10-1, *Listed Impaired Water Bodies in Los Banos*.

¹⁴ Merced County, 2021. Draft *Multi-Jurisdictional Hazard Mitigation Plan Update 2021-2026*.

¹⁵ U.S. Climate Data, 2022. U.S. Climate Data accessed on May 18, 2022 at <https://www.usclimatedata.com/climate/los-banos/california/united-states/usca0640>.

¹⁶ Central Valley RWQCB, 2018. *Water Quality Control Plan (Basin Plan) for the Central Valley Region*, https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf, accessed on May 17, 2022.

HYDROLOGY AND WATER QUALITY**TABLE 4.10-1 LISTED IMPAIRED WATER BODIES IN LOS BANOS**

Name	Pollutants of Concern
Los Banos Creek	Indicator Bacteria, Toxicity, Total Dissolved Solids, Dissolved Oxygen)
Grasslands Marshes	Selenium, Electrical Conductivity

Source: State Water Resources Control Board (SWRCB), 2018. Integrated Report Map. Accessed May 18, 2022 at https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report/2018IR_map.html.

Once a water body has been placed on the 303(d) list of impaired waters, states are required to develop a TMDL threshold to address each pollutant causing impairment. A TMDL defines how much of a pollutant a water body can tolerate and still meet water quality standards. A TMDL has been approved by the EPA for selenium in the Grassland Marshes.

The primary water quality concern in the City's groundwater supply is hexavalent chromium.¹⁷ Although the City's drinking water currently meets all of the federal and State water quality standards, the California Division of Drinking Water is evaluating a new maximum contaminant level (MCL) for hexavalent chromium that may require the City to install a combination of wellhead treatment facilities and/or a surface water treatment plant in the future. The City and SJREC are evaluating and implementing projects that would improve groundwater quality through increasing recharge and storage. For example, the hexavalent chromium concentration dropped significantly in one City supply well near Los Banos Creek in 2017 with implementation of the Los Banos Creek Diversion Facility project (see Appendix I, *Water Supply Assessment*, of this Draft EIR).

Flood Zones

FEMA identifies floodplain zones to assist cities with mitigating flooding hazards through land use planning. FEMA also outlines specific regulations for any construction within a 100-year floodplain. The 100-year floodplain is defined as an area that has a one percent chance of being inundated during a 12-month period. According to FEMA, no portion of the EIR Study Area is within a 100-year floodplain.¹⁸ Additionally, there are no portions of the EIR Study Area that are within an inundation zone for levees.¹⁹

Dam Inundation

The EIR Study Area and the city are within the inundation zones for San Luis Reservoir and Los Banos Creek Reservoir.²⁰ The inundation zones are shown on Figure 4.10-2, *Dam Inundation Zones*. There are no State or local restrictions for development in dam inundation zones; however, each dam owner is required to prepare an emergency action plan (EAP) and coordinate its response to a dam incident with local authorities. The EAP is required to include warning and notification procedures that would involve the

¹⁷ City of Los Banos, 2021. *2020 Urban Water Management Plan*.

¹⁸ Federal Emergency Management Agency (FEMA), 2021. FEMA's National Flood Hazard Layer (NFHL) Viewer, accessed on May 18, 2022 at <https://www.fema.gov/flood-maps/national-flood-hazard-layer>.

¹⁹ Merced County, 2021. *Draft Multi-Jurisdictional Hazard Mitigation Plan Update 2021-2026*.

²⁰ Merced County, 2013. *2030 General Plan, Safety Element*.

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Standard Emergency Management System (SEMS), the Merced County Sheriff's Department, and the Los Banos Fire Department.

Tsunami

A tsunami is a series of traveling ocean waves generated by a rare, catastrophic event, including earthquakes, submarine landslides, and submarine or shoreline volcanic eruptions. The EIR Study Area is approximately 50 miles from the ocean and therefore not at risk of flooding from a tsunami.

Seiche

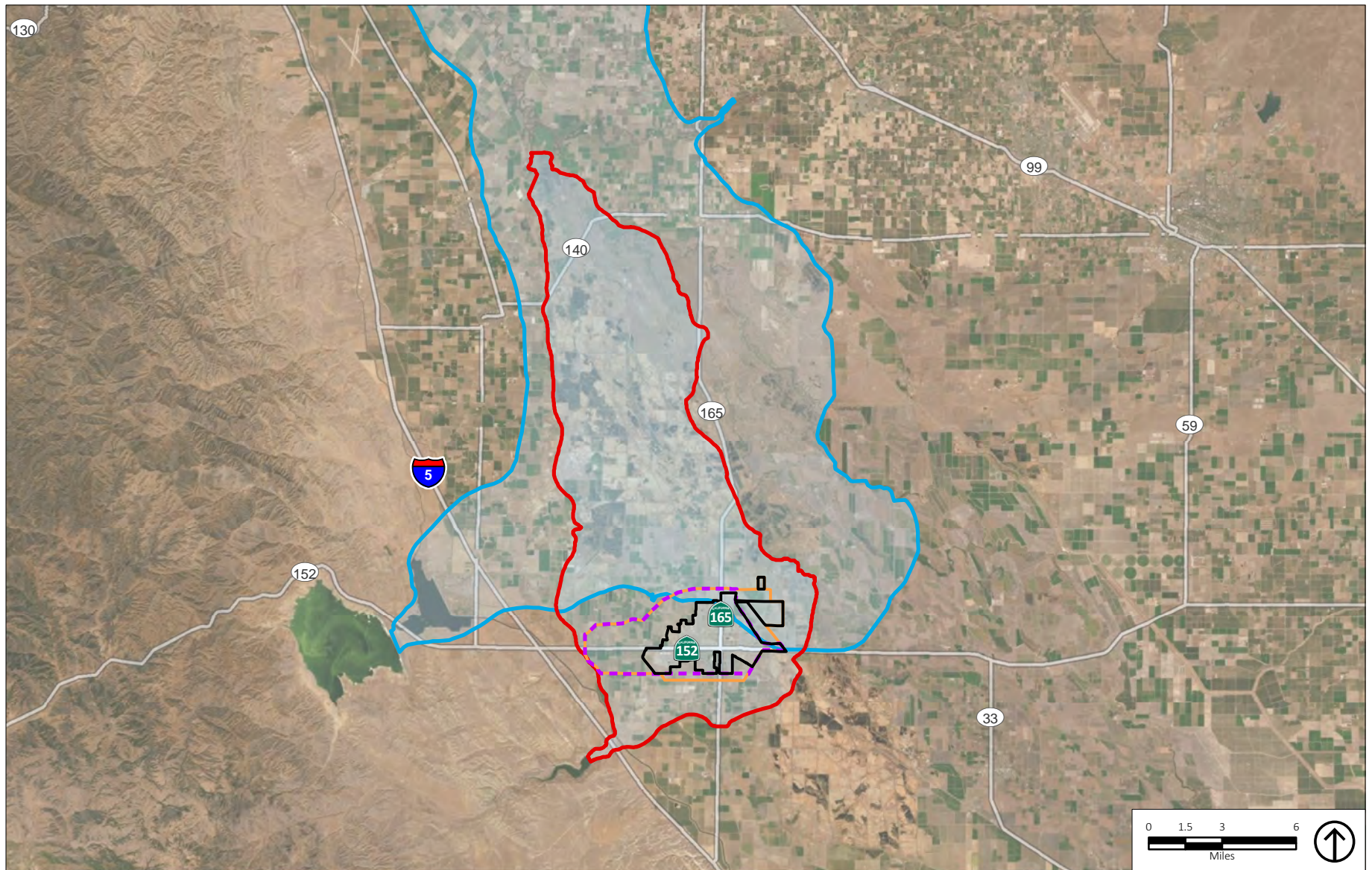
A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin such as a reservoir, harbor, lake, or storage tank. Seiches can be created by winds, earthquakes, or tsunamis. Bodies of water such as bays, harbors, lakes, reservoirs, or large aboveground storage tanks can experience seiches. There are no large bodies of water within the EIR Study Area that could trigger a seiche. The City's water system includes 2 aboveground water tanks (100,000 gallons and 5 million gallons). The nearest body of water is the Los Banos Creek Reservoir, approximately 5 miles to the southwest. A seiche at Los Banos Creek Reservoir would cover a much smaller area than a catastrophic failure of the dam, and it is highly unlikely that any flood waters would reach the City. Seismic activity could result in seiches occurring and impacting the aboveground water tanks in the City; however, the tanks are constructed to withstand seismic events and would not result in failure that would cause significant flooding.

4.10.2 STANDARDS OF SIGNIFICANCE

The implementation of the proposed project would result in a significant impact related to hydrology and water quality if it would:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.
2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; 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 iv) impede or redirect flood flows.
4. In a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.
6. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to hydrology and water quality.

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Source: Cal OES, 2016; PlaceWorks, 2022.

- City Limit
- San Luis Reservoir
- Proposed Urban Growth Boundary (UGB)
- Los Banos Creek Detention Reservoir
- Proposed Sphere of Influence (SOI)

Figure 4.10-2
Dam Inundation Zones

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4.10.3 IMPACT DISCUSSION

HYD-1	The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.
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Construction Impacts

Buildout of the proposed General Plan 2042 would involve soil disturbance that could generate pollutants affecting stormwater. Clearing, grading, excavation, and construction activities associated with the proposed General Plan 2042 have the potential to impact water quality through soil erosion and increasing the amount of silt and debris carried in runoff. Additionally, the use of construction materials, such as fuels, solvents, and paints, may present a risk to surface water quality. Finally, the refueling and parking of construction vehicles and other equipment on-site during construction may result in oil, grease, or related pollutant leaks and spills that may discharge into the storm drain system.

To minimize these potential impacts, future development pursuant to the proposed General Plan 2042 that disturbs one or more acres of land would require compliance with the Construction General Permit (CGP) Water Quality Order 2009-0009-DWQ (as amended by Order No. 2010-0014-DWQ and 2012-006-DWQ), which includes the preparation and implementation of a SWPPP. A SWPPP requires the incorporation of BMPs to control sediment, erosion, and hazardous materials contamination of runoff during construction and prevent contaminants from reaching receiving water bodies. The SWRCB mandates that projects that disturb one or more acres of land must obtain coverage under the Statewide CGP. The CGP also requires that prior to the start of construction activities, the project applicant must file PRDs with the SWRCB, which includes a Notice of Intent, risk assessment, site map, annual fee, signed certification statement, and a SWPPP. The construction contractor is required to maintain a copy of the SWPPP at the site and implement all construction BMPs identified in the SWPPP during construction activities. Prior to the issuance of a grading permit, the project applicant is required to provide proof of filing of the PRDs with the SWRCB. Categories of potential BMPs that would be implemented are described in Table 4.10-2, *Construction Best Management Practices to Prevent Erosion*.

Submittal of the PRDs and implementation of the SWPPP throughout the construction phase of development pursuant to the proposed General Plan 2042 will address anticipated and expected pollutants of concern from construction activities. Furthermore, future projects would abide by the requirements of LBMC Title 6, Chapter 13 described in Section 4.10.1.1, *Regulatory Framework*, which specifies construction-phase BMPs to prevent the discharge of contaminants to stormwater during construction and erosion and sediment control practices to be prepared for review and approval by the City. As a result, water quality impacts associated with construction activities would be *less than significant* and no mitigation measures are required.

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TABLE 4.10-2 CONSTRUCTION BEST MANAGEMENT PRACTICES TO PREVENT EROSION

Category	Purpose	Examples
Erosion Controls and Wind Erosion Controls	<ul style="list-style-type: none"> Use project scheduling and planning to reduce soil or vegetation disturbance (particularly during the rainy season) Prevent or reduce erosion potential by diverting or controlling drainage Prepare and stabilize disturbed soil areas 	Scheduling, preservation of existing vegetation, hydraulic mulch, hydroseeding, soil binders, straw mulch, geotextile and mats, wood mulching, earth dikes and drainage swales, velocity dissipation devices, slope drains, streambank stabilization, compost blankets, soil preparation/roughening, and non-vegetative stabilization
Sediment Controls	<ul style="list-style-type: none"> Filter out soil particles that have been detached and transported in water 	Silt fence, sediment basin, sediment trap, check dam, fiber rolls, gravel bag berm, street sweeping and vacuuming, sandbag barrier, straw bale barrier, storm drain inlet protection, manufactured linear sediment controls, compost socks and berms, and biofilter bags
Wind Erosion Controls	<ul style="list-style-type: none"> Apply water or other dust palliatives to prevent or minimize dust nuisance 	Dust control soil binders, chemical dust suppressants, covering stockpiles, permanent vegetation, mulching, watering, temporary gravel construction, synthetic covers, and minimization of disturbed area
Tracking Controls	<ul style="list-style-type: none"> Minimize the tracking of soil offsite by vehicles 	Stabilized construction roadways and construction entrances/exits, and entrance/outlet tire wash
Non-Stormwater Management Controls	<ul style="list-style-type: none"> Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment Conduct various construction operations, including paving, grinding, and concrete curing and finishing, in ways that minimize non-stormwater discharges and contamination of any such discharges 	Water conservation practices, temporary stream crossings, clear water diversions, illicit connection/discharge, potable and irrigation water management, and the proper management of the following operations: paving and grinding, dewatering, vehicle and equipment cleaning, fueling and maintenance, pile driving, concrete curing, concrete finishing, demolition adjacent to water, material over water, and temporary batch plants
Waste Management and Controls (i.e., good housekeeping practices)	<ul style="list-style-type: none"> Manage materials and wastes to avoid contamination of stormwater 	Stockpile management, spill prevention and control, solid waste management, hazardous waste management, contaminated soil management, concrete waste management, sanitary/septic waste management, liquid waste management, and management of material delivery storage and use

Source: Compiled by PlaceWorks from information provided in the California Stormwater Quality Association's Construction Best Management Practices (BMP) Handbook.

Operational Impacts

With the proposed land use changes, development resulting from implementation of General Plan 2042 may result in long-term impacts to the quality of stormwater and urban runoff, subsequently impacting

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downstream water quality in CCID and GWD canals. Developments can potentially create new sources for runoff contamination through changing land uses. Therefore, developments within the EIR Study Area as a whole may have the potential to increase the post-construction pollutant loadings of certain constituent pollutants associated with the proposed land uses and their associated features, such as landscaping.

To help prevent long-term impacts associated with land use changes and in accordance with the requirements of the Phase II Small MS4 permit (Order No. 2013-0001-DWQ, last amended in 2018), new development and significant redevelopment projects must incorporate LID site design and BMPs to address post-construction stormwater runoff. Projects that involve the creation and/or replacement of 2,500 square feet or more of impervious surfaces would trigger the implementation of site design measures to reduce stormwater runoff, pursuant to the City's LID Manual, which is currently being developed. In addition, stormwater treatment measures are required to temporarily detain site runoff for regulated projects that create or replace 5,000 square feet or more of impervious surface. Bioretention BMPs also provide water quality benefits by removing pollutants from stormwater runoff prior to discharge to the storm drain system. Regulated projects would be required to demonstrate that the regulatory requirements for sizing and temporarily retaining stormwater runoff onsite have been met by submitting a Stormwater Management Checklist to the City's Public Works Department prior to the issuance of grading permits.

The City is also planning to upgrade existing storm drains and build new detention basins and pump stations to serve the buildout of General Plan 2042, as described in detail in the Stormwater Master Plan. The City is currently divided into 16 hydrologically distinct subbasins, which will be expanded to 21 subbasins at buildout. Each subbasin will have a system of conveyance facilities and regional stormwater detention basins to reduce peak flows and improve water quality prior to discharge to the CCID and GWD canals.

As part of the statewide mandate to reduce trash within receiving waters, the City is required to adhere to the requirements of the California Trash Amendments. The requirements include the installation and maintenance of trash screening devices at all public curb inlets, grate inlets, and catch basin inlets. The trash screening devices must be approved by the local agency and be consistent with the minimum standards of the trash TMDL.

Additionally, all development pursuant to the proposed General Plan 2042 shall comply with the requirements of the LBMC, which prohibits illicit connections to the storm drainage system and forbids prohibited discharges. All development that discharges stormwater associated with industrial activity shall also comply with the requirements of the General Industrial Permit (Order No. 2014-0057-DWQ, last amended in 2018). Development that involves the installation or decommissioning of water wells shall do so in accordance with Section 13751 of the Water Code. As stated previously, the LBMC Title 6, Chapter 13 requires compliance with BMPs for new or significant redevelopment projects, subject to approval by the City and in accordance with the Phase II Small MS4 Permit.

The General Plan 2042 Parks, Open Space, and Conservation (P) Element and Public Services and Facilities (PSF) Element contain goals, policies, and actions that require local planning and development decisions

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to consider impacts to water quality. The following General Plan 2042 goals, policies, and actions would serve to minimize potential adverse impacts on water quality and stormwater discharge.

- **Goal P-9.** Protect and restore water quality in and around Los Banos.
 - **Policy P-P9.1.** Protect the quality of stormwater that discharges into areas in and around Los Banos.
 - **Policy P-P9.2.** Ensure groundwater quality is maintained at a satisfactory level for domestic consumption.
 - **Policy P-P9.3.** Require the use of enhanced stormwater control facilities that provide additional filtration of stormwater to remove pollutants prior to discharge to pastureland or the Grassland Water District and other water districts.
 - **Policy P-P9.4.** Work with the San Joaquin River Exchange Contractors (SJREC) Groundwater Sustainability Plan (GSP) group to offset increases in water demand based on projected population growth by identifying, analyzing, and implementing projects jointly with the SJREC to maximize the regional benefits. The City will develop projects to offset overdraft, including (1) stormwater capture, (2) demand reduction through reduced watering, (3) surface water transfer, (4) purchasing groundwater credits, and (5) participation in recharge projects.
 - **Action P-A9.1.** Monitor groundwater quality and quantity throughout the Planning Area.
 - **Action P-A9.2.** Work with Central California Irrigation District to investigate a possible water recharge program. (POSR-I-35).
 - **Action P-A9.3.** Seek funding from the Department of Water Resources' Sustainable Groundwater Planning Grant Program (SGWP) to fund projects that promote the sustainable use of groundwater.
 - **Action P-A9.4.** Explore the feasibility of surface water transfers from Central California Irrigation District and Grassland Water District to alleviate groundwater overdraft and groundwater quality issues.
- **Goal PFS-3.** Ensure a resilient supply of fresh, safe water to serve existing and future needs of the city.
 - **Policy PFS-P3.7.** Require all development projects to submit a landscaping plan.
 - Commercial, public right-of-way, and park projects will be required to submit planting plans, irrigation plans, irrigation schedules, and water use estimates for City approval prior to issuance of building permits;
 - Industrial projects will be required to submit plans for water recycling and explain how water use will meet requirements of the National Pollutant Discharge Elimination System program during the plan review process. They will also be required to submit irrigation plans for proposed landscaping.
- **Goal PFS-4.** Achieve a sustainable stormwater drainage system that meets the existing and future needs of the city.
 - **Policy PFS-P4.1.** Require green infrastructure improvements in new private developments.

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- **Policy PFS-P4.2.** Where possible, incorporate green infrastructure improvements in public improvement projects by the City.
- **Action PFS-A4.1.** Create an incentive program to promote improvement of existing residential, commercial, and industrial developments and structures with green infrastructure improvements.
- **Goal PFS-5.** Ensure that adequate, safe wastewater treatment capacity is available to serve existing and future needs of the city.
 - **Policy PFS-P5.1.** Design stormwater and wastewater collection and treatment facilities to serve expected buildout of the areas served by these facilities.
 - **Policy PFS-P5.3.** Encourage the use of reclaimed water for irrigation and landscaping purposes.

Green infrastructure encompasses a variety of water management practices that capture, filter, and reduce stormwater flows. Some types of green infrastructure include green roofs, bioswales, rain gardens, planter boxes, trees, permeable pavements, collection basins, and stormwater recapture. Green infrastructure may also include improvements and restoration of existing land features, such as expanding parks, greening public land and schoolyards, or creek and wetland restoration. Green infrastructure improvements can be implemented by public improvement projects as well as incorporated into private development projects.

The proposed project also includes the proposed Annexation Ordinance that, as described in detail in Chapter 3, *Project Description*, of this Draft EIR, states the application eligibility criteria and the findings necessary for approval. The proposed Annexation Ordinance also describes the required content of Specific Plans for those areas to be annexed into the city limit. All specific plans must include the location and specifications for drainage facilities needed to serve new development consistent with City infrastructure master plans. Specific plans for residential development must identify drainage facilities that utilize green infrastructure or are designed as natural waterways wherever possible and consistent with public safety considerations.

Although new storm drain facilities and regional detention basins are planned with implementation of General Plan 2042, the construction of these facilities would not cause significant environmental impacts to water quality. Therefore, with the implementation of the components of the proposed project listed above, in conjunction with State and local regulatory requirements and compliance of the City's pending LID Manual, potential future development would not violate water quality standards or waste discharge requirements for both construction and operational phases, and impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

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HYD-2	The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
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Implementation of the proposed project would result in a significant environmental impact if it would substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. New development under the proposed General Plan 2042 could result in an increase in impervious surfaces, thus reducing groundwater recharge.

Groundwater Use

The primary source of water for the proposed project would be groundwater extracted by the City to provide service to its customers. According to the City's 2020 Urban Water Management Plan (UWMP), the projected groundwater supply in 2042 can meet future water demand. However, the water demand from the City's 2020 UWMP were population-based projections which generally do not account for changes in land uses. The buildout projections of General Plan 2042 provides new information about residential and commercial development potential over the next 20 years that was not factored into the City's 2020 UWMP. Given this new information and the projected increase in population with implementation of General Plan 2042, the Water Supply Assessment (WSA) for the proposed project provides water demand projections based upon land use changes identified in General Plan 2042 (see Appendix I, *Water Supply Assessment*, of this Draft EIR).

The results of the WSA indicate that General Plan 2042 water demand would increase by 4,080 AFY above existing conditions for a total water demand of 12,389 AFY in 2042, which would exceed the demand specified in the 2020 UWMP by 1,557 AFY. Since the 2020 UWMP states that there would be exactly enough water supply to meet the demand in normal, single-dry, and multiple-dry years, the City would need to find a water supply source for the additional 1,557 AFY required with buildout of General Plan 2042. However, it should be noted that UWMPs tend to overestimate future water demand.²¹ In addition, there is a long-term trend of declining per capita water demand due to the use of water-efficient devices in the residential and commercial sectors, so that the total water demand declines even as populations increase.

In addition, there will be a reduction in groundwater pumping within the EIR Study Area with the conversion of land with private groundwater wells to the City's water distribution system. Current groundwater pumping rates from private wells within the EIR Study Area are approximately 4,766 AFY. The decrease in groundwater pumping from private wells would offset the increase in groundwater pumping (3,860 AFY) by the City to serve new development with buildout of General Plan 2042.

²¹ Pacific Institute, 2020. *An Assessment of Urban Water Demand Forecasts in California*.

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Groundwater Recharge

The effect that the proposed General Plan 2042 would have on groundwater recharge was evaluated in the WSA (see Appendix I, *Water Supply Assessment*, of this Draft EIR) and discussed further in Chapter 4.16, *Utilities and Service Systems*, of this Draft EIR. The City currently has no specific groundwater pumping restrictions under SGMA, but restrictions may be developed and implemented over the next few years. The SJREC GSP prepared a groundwater budget for each GSA to ensure that the groundwater sustainability goal is met. According to the groundwater budget evaluation in the 2019 GSP, the approximate sustainable yield for the City of Los Banos GSA is 0.40 AF/acre. Since the EIR Study Area encompasses 14,500 acres, this is equivalent to 5,800 AFY. As indicated in the WSA (Appendix I, *Water Supply Assessment*, of this Draft EIR), the consumptive use of groundwater in 2042 with buildout of General Plan 2042 is less than the sustainable yield criterion. Therefore, the water budget for Los Banos meets the sustainability criterion. Due to the decrease in groundwater pumping from conversion of land with private groundwater wells to the City's water distribution system serving water-efficient urban development, there would be additional potential for groundwater replenishment and recharge.

Specific criteria on pumping restrictions have not yet been developed for Los Banos, although it is anticipated that they will be determined over the next few years and mandatory water conservation measures may be required to achieve groundwater sustainability. However, new projects developed pursuant to the proposed General Plan 2042 will be required to implement BMPs and LID measures to reduce groundwater use. The City's LID Manual, currently under development, implements the E.12 Post-Construction Measures in the Phase II Small MS4 Permit requiring site design measures, source control measures, LID standards, and hydromodification measures that must be implemented and approved by the City. These measures minimize the impact of impervious areas and increase the potential for groundwater recharge by including pervious pavements and drainage to landscaped areas and bioretention areas in new development projects.

Furthermore, the proposed General Plan 2042 Parks, Open Space, and Conservation (P) Element and Public Facilities and Services (PFS) Element contain goals, policies, and actions that require local planning and development decisions to consider impacts to groundwater. In addition to the Goal LU-9 and Policies P-P9.2 and P-P9.4, and Actions P-A9.1, P-A9.2, P-A9.3 listed in impact discussion HYD-1, the following General Plan 2042 goals, policies, and actions would serve to minimize potential adverse impacts to groundwater.

- **Goal P-6.** Protect and restore biological resources of Los Banos.
 - **Action P-A6.1.** Develop buffer zones around Los Banos Creek Corridor and Grassland wetland areas to the east to enhance groundwater recharge and minimize impacts to habitat species.
- **Goal PFS-3.** Ensure a resilient supply of fresh, safe water to serve existing and future needs of the city.
 - **Policy PFS-P3.2.** Ensure adequate groundwater reserves are maintained for present and future domestic, commercial, and industrial uses.
 - **Policy PFS-P3.3.** Require new development to document that water supply capacity, quality, and infrastructure are in place prior to approval of new development.

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- **Policy PFS-P3.6.** Attempt to retain water rights in all annexed areas so that agricultural production can continue on annexed land until the time of development. These rights will then be made available to meet urban water demands, or where feasible, be exchanged for groundwater recharge opportunities as part of a comprehensive water recharge program.
- **Policy PFS-P3.8.** Develop water filtration facilities to ensure the quality of groundwater meets federal and state drinking water standards. The City may place a temporary cap on urban development, if necessary, to allow facilities to catch up with growth.

New policies enacted under the proposed General Plan 2042 include working with the SJREC on projects and management actions to offset groundwater withdrawals that exceed the sustainable yield and exploring the potential for surface water transfers from CCID to alleviate groundwater overdraft and groundwater quality issues. The SJREC is working to implement projects that would increase groundwater recharge by 50,000 AF, including the Los Banos Creek Diversion Facility, Los Banos Creek Recharge and Recovery Program, and the Los Banos Creek Storage Project. Also, buffer zones will be established around Los Banos Creek Corridor and the Grassland wetland areas to the east to enhance groundwater recharge and minimize impacts to wetlands and habitat species.

In summary, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. In addition, compliance with the LBMC requirements for new construction and water efficient landscaping and General Plan 2042 goals, policies, and actions listed above would, with respect to groundwater recharge, result in *less than significant* impacts and no mitigation measures are required.

Significance without Mitigation: Less than significant.

HYD-3	The project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; 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 iv) impede or redirect flood flows.
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Erosion and Siltation

New development or redevelopment within the EIR Study Area and changes in land use could result in an increase in impervious surfaces. This, in turn, could result in an increase in stormwater runoff, higher peak discharges to drainage channels, and the potential to cause erosion or siltation in drainage swales and canals.

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All potential future development pursuant to the proposed General Plan 2042 would be required to implement construction-phase BMPs as well as post-construction site design, source control measures, and treatment controls in accordance with the requirements of the CGP, the City's LID Manual currently in development, and the Phase II Small MS4 Permit. Typical construction BMPs include silt fences, fiber rolls, catch basin inlet protection, water trucks, street sweeping, and stabilization of truck entrance/exits. Each new development or redevelopment project that disturbs one or more acre of land would be required to prepare and submit a SWPPP to the SWRCB that describes the measures to control discharges from construction sites. 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.

Once potential future development projects have been constructed, there are Provision E.12 requirements in the Phase II Small MS4 permit for new development or redevelopment projects that must be implemented and include site design measures, source control measures, LID, and treatment measures that address stormwater runoff and would reduce the potential for erosion and siltation. Site design measures include limits on clearing, grading, and soil compaction; minimizing impervious surfaces; conserving the natural areas of the site as much as possible and protecting slopes and channels from erosion. LID measures include the use of permeable pavements, directing runoff to pervious areas, and the construction of bioretention areas. Compliance with these regional and local regulatory requirements will ensure that erosion and siltation impacts from new development and redevelopment projects would be *less than significant* and no mitigation measures are required.

Flooding On- or Off-Site

New development and/or redevelopment and changes in land uses could 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 canals, and the potential to cause nuisance flooding in areas without adequate drainage facilities. However, all potential future development must comply with the requirements of the Phase II MS4 Permit and the City's LID Manual currently in development. Regulated projects must implement BMPs, including LID BMPs and site design BMPs, which effectively minimize imperviousness, retain or detain stormwater on-site, decrease surface water flows, and slow runoff rates. Projects that create and/or replace one acre or more of impervious surfaces must implement hydromodification management, which requires that post-project runoff flow rates do not exceed the pre-project flow rate for the 2-year, 24-hour storm event. Adherence to these regulatory requirements would minimize the amount of stormwater runoff from new development and redevelopment within the EIR Study Area. Therefore, projects pursuant to the proposed General Plan 2042 would not result in flooding on- or off-site, and impacts would be *less than significant* and no mitigation measures are required.

Stormwater Drainage System Capacity

As stated in the impact discussions above, an increase in impervious surfaces with new development or redevelopment could result in increases in stormwater runoff, which in turn could exceed the capacity of existing or planned stormwater drainage systems. The proposed land use changes in General Plan 2042 would primarily involve the conversion of agricultural land and open space which increase the amount of impervious surfaces.

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Projects that involve the creation and/or replacement of 2,500 square feet or more of impervious surfaces would trigger the implementation of site design measures to reduce stormwater runoff, pursuant to the City's LID Manual, which is currently being developed, and the Phase II Small MS4 Permit requirements. Prior to the issuance of grading permits, the Public Works Department will require completion and submittal of a Stormwater Management Checklist for review and approval to ensure that these requirements are met. In addition, stormwater treatment measures are required to temporarily detain site runoff for regulated projects that create or replace 5,000 square feet or more of impervious surface, using specific numeric sizing criteria based on volume and flow rate. Implementation of these stormwater measures will reduce the amount of stormwater runoff that is ultimately discharged to the CCID and GWD canals. Projects that create and/or replace one acre or more of impervious surfaces must also adhere to the hydromodification requirements of the Phase II Small MS4 permit and demonstrate that post-project runoff does not exceed pre-project runoff for the 2-year, 24-hour storm event.

Regulated projects would be required to demonstrate that the regulatory requirements for the sizing and temporary on-site retention of stormwater runoff have been met by submitting a Stormwater Management Checklist to the City's Public Works Department prior to the issuance of grading permits. This would minimize the amount of stormwater runoff from new development and redevelopment sites within the planning area. Also, as part of the permitting process, new development projects would be required to pay public utility fees, pursuant to LBMC Title 9, Chapter 2, which finances improvements to the municipal storm drain system to accommodate increased flows.

The City is also planning to upgrade existing storm drains and build new detention basins and pump stations to serve the buildout of the proposed General Plan 2042, as described in detail in the Stormwater Master Plan. The City is currently divided into 16 hydrologically distinct subbasins, which will be expanded to 21 subbasins at buildout. Each subbasin will have a system of conveyance facilities and regional stormwater detention basins to reduce peak flows and improve water quality prior to discharge to the CCID and GWD canals.

Further, new development and redevelopment within the EIR Study Area would not create substantial additional sources of polluted runoff. During the construction phase, projects would be required to prepare SWPPPs, thus limiting the discharge of pollutants from the site. During operation, projects must implement BMPs and LID measures that minimize the amount of stormwater runoff and associated pollutants. The proposed Annexation Ordinance requires specific plans that must include the location and specifications for drainage facilities needed to serve new development consistent with City infrastructure master plans.

With implementation of these provisions for new development and redevelopment projects and the construction of regional detention basins, the proposed General Plan 2042 would not result in significant increases in runoff that would exceed the capacity of existing or planned storm drain facilities, and the impact is *less than significant* and no mitigation measures are required.

Redirecting Flood Flows

The discussion above regarding on- and off-site flooding is also applicable to the analysis of impeding or redirecting flood flows. Since new development projects are required to comply with E.12 provisions of

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the Phase II Small MS4 Permit and retain stormwater on-site via the use of bioretention facilities, peak stormwater flow rates would be attenuated, which would minimize the potential for flooding impacts. In addition, there are no 100-year flood zones within the EIR Study Area. The following impact discussion for HYD-4 discusses the potential for impeding or redirecting flood flows with development in areas within dam inundation zones. Based on these discussions, impacts related to impeding or redirecting flood flows would be *less than significant* and no mitigation measures are required.

The proposed General Plan 2042 Parks, Open Space, and Conservation (P) Element; Safety and Noise (S) Element; and Public Facilities and Services (PFS) Element contains goals, policies, and actions that require local planning and development decisions to consider impacts to hydrology. In addition to the Goal LU-9 and Policies P-P9.1, P-P9.3, and P-P9.4; Goal PFS-3 and Policy PFS-P3.7; and Goal PFS-4 and Policies PFS-P4.1 and PFS-P4.2, and Action PFS-A4.1; and Goal PFS-5 and Policy PFS-P5.1 listed in impact discussion HYD-1, the following General Plan 2042 goals, policies, and actions would serve to minimize potential adverse impacts to water quality.

- **Goal S-1.** Minimize risks of property damage and personal injury posed by seismic hazards, soil hazards, and erosion.
 - **Policy S-P1.5.** Control erosion of graded areas with revegetation or other acceptable methods.
 - **Policy S-P1.6.** Maintain grading and landscaping regulations to reduce soil erosion potential, including.
 - Planning and conducting operations and construction activities in a manner that will not disturb extensive areas of soil or that will disrupt local drainage;
 - Prohibiting organic or earthen material from being discharged into any canals or waterways or placed at locations where they can pass into canals or waterways in quantities that could impair any beneficial use of the water.
- **Goal S-2.** Protect the community from risks to lives and property posed by flooding and stormwater runoff.
 - **Policy S-P2.1.** Require new development to prepare hydrologic studies and implement appropriate mitigation measures to minimize surface water run-off and reduce the risk of flooding.
 - **Policy S-P2.2.** Require developers to provide for the ongoing maintenance of detention basins.
 - **Policy S-P2.3.** Ensure that City staff and Emergency Response Services are trained to respond to a catastrophic dam failure, according to emergency procedures outlined by Merced County Office of Emergency Services' Multi-jurisdictional Hazard Mitigation Plan.
 - **Action S-A2.1.** Determine, locate, and improve deficiencies in the existing drainage infrastructure in partnership with regional and federal agencies.
 - **Action S-A2.2.** Maintain and regularly update the Storm Drain Master Plan.
 - **Action S-A2.3.** Coordinate with the Merced County Department of Public Works, Merced County Office of Emergency Services, California Department of Water Resources, California Governor's Office of Emergency Services, and the U.S. Army Corps of Engineers on potential flooding risks, including risks associated with dam failure.

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With the implementation of regulatory requirements and the proposed General Plan 2042 goals, policies and actions listed here, these hydrology impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

HYD-4	The project would not, in a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
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As discussed in Section 4.10.1, *Environmental Setting*, no portion of the EIR Study Area is within a 100-year floodplain. Additionally, there are no large bodies of water nearby or within the EIR Study Area that would result in a seiche causing significant flooding. The project site is inland and approximately 50 miles from the ocean and is not at risk of flooding due to tsunamis.

However, the EIR Study Area is within the inundation zones for the San Luis Reservoir and Los Banos Creek Reservoir, which are depicted in Figure 4.10-2, *Dam Inundation Zones*. The two earthen dams are owned by the Bureau of Reclamation and maintained by the California DWR and function as flood control dams for the California Aqueduct, the Delta-Mendota Canal, and other adjacent areas including the City of Los Banos.

The probability of dam failure is very low, and Los Banos has never been impacted by a major dam failure. In addition, dam owners are required to maintain emergency action plans that include procedures for damage assessment and emergency warnings. An EAP identifies potential emergency conditions at a dam and specifies preplanned actions to help minimize property damage and loss of life should those conditions occur. EAPs contain procedures and information that instruct dam owners to issue early warning and notification messages to downstream emergency management authorities, such as the Merced County Office of Emergency Services (OES) and local fire departments. The County's emergency notification procedures are included in the MJHMP for the County. Because the likelihood of catastrophic dam failure is very low, impacts related to the release of pollutants due to dam inundation are considered less than significant.

Furthermore, the proposed General Plan 2042 Safety and Noise (S) Element contains goals, policies, and actions that require local planning and development decisions to consider impacts to hydrology. The following General Plan 2042 goals, policies, and actions would minimize potential adverse impacts due to flooding:

- **Goal S-1.** Minimize risks of property damage and personal injury posed by seismic hazards, soil hazards, and erosion.
 - **Policy S-P1.8.** Require aboveground storage tanks to be located and regularly inspected to minimize potential risks to life and property.
- **Goal S-2.** Protect the community from risks to lives and property posed by flooding and stormwater runoff.

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- **Policy S-P2.3.** Ensure that City staff and Emergency Response Services are trained to respond to a catastrophic dam failure, according to emergency procedures outlined by Merced County Office of Emergency Services' Multi-jurisdictional Hazard Mitigation Plan.
- **Action S-A2.3.** Coordinate with the Merced County Department of Public Works, Merced County Office of Emergency Services, California Department of Water Resources, California Governor's Office of Emergency Services, and the U.S. Army Corps of Engineers on potential flooding risks, including risks associated with dam failure.
- **Goal S-6.** Minimize the risk of personal injury, property damage, and environmental damage from both natural and human-made disasters and improve natural disaster response capabilities through a variety of emergency preparedness measures.
 - **Policy S-P6.2.** The Merced County Multi-jurisdictional Hazard Mitigation Plan, approved by the Federal Emergency Management Agency (FEMA) in 2021, is incorporated by reference into this Safety Element in accordance with Assembly Bill 2140.
 - **Action S-A6.1.** Continue to participate in County led efforts to regularly update and implement the Merced County Multi-jurisdictional Hazard Mitigation Plan (MJHMP), consistent with guidelines of the Federal Emergency Management Agency (FEMA) and the Disaster Act of 2000.

Therefore, impacts associated with the release of pollutants due to flooding from implementation of the proposed project would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

HYD-5	The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.
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The City's groundwater supplies are from the Delta-Mendota Subbasin, which has been designated as a high priority groundwater basin and is in critical overdraft. The City of Los Banos is one of ten GSAs that are part of the SJREC Group, which prepared a Groundwater Sustainability Plan (GSP) in December 2019. GSAs for basins in critical overdraft must adopt and begin to implement the GSP by January 31, 2020 and must achieve the sustainability goals by January 31, 2040.

The results of the WSA (see Appendix I, *Water Supply Assessment*, of this Draft EIR) indicate that the proposed General Plan 2042 would result in an increased water demand of 3,860 AFY for a total water demand of 12,169 AFY. The water demand would be met by pumping groundwater from the Delta-Mendota Subbasin via the City's well network. A new groundwater well is planned for 2024 and is estimated to yield about 2,400 AFY. The City currently has no specific groundwater use restrictions under SGMA, but restrictions may be developed and implemented over the next few years. Additionally, water demand has not increased significantly over the past ten years even with an increase in population due to the installation of low flow plumbing fixtures for new construction and the implementation of water conservation efforts. Within the EIR Study Area, there would be a reduction in groundwater pumping with the conversion of land with private wells to non-agricultural uses connected to the City's water distribution system, resulting in decrease in groundwater use of 906 AFY from the Delta-Mendota

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Subbasin. Additionally, the results of the WSA show the City would meet the sustainability criterion established by the SJREC GSP water budget for Los Banos with buildout of General Plan 2042.

Adherence to the State CGP, the LBMC, the Phase II Small MS4 Permit, and City's LID Manual (currently in development) would ensure that surface and groundwater quality are not adversely impacted during construction and operation of new development pursuant to General Plan 2042. As a result, site development will not obstruct or conflict with the implementation of the Central Valley's Basin Plan.

Furthermore, the proposed General Plan 2042 Parks, Open Space, and Conservation (P) Element and Public Facilities and Services (PFS) Element contains goals, policies, and actions that require local planning and development decisions to consider impacts to hydrology. In addition to the Goal LU-9 and Policies P-P9.1, P-P9.2, P-P9.3, and P-P9.4, and Actions P-A9.1, P-A9.2, P-A9.3, and P-A9.4 listed in impact discussion HYD-1 and Goal P-6 and Action P-A6.1 listed in impact discussion HYD-2, the proposed General Plan 2042 includes a policy in the Public Facilities and Services (PFS) Element that would also minimize impacts to groundwater. Policy PFS-P3.5 requires the City to attempt to retain water rights in all annexed areas so that agricultural production can continue on annexed land until the time of development. These rights will then be made available to meet urban water demands, or where feasible, be exchanged for groundwater recharge opportunities as part of a comprehensive water recharge program. Implementation of these goals, policies, and actions would minimize potential adverse impacts to groundwater.

Proposed policies enacted under General Plan 2042 include working with the SJREC on projects and management actions to offset groundwater withdrawals that exceed the sustainable yield and exploring the potential for surface water transfers from CCID to alleviate groundwater overdraft and groundwater quality issues. Therefore, the proposed project would not obstruct or conflict with the RWQCB's Basin Plan or the SJREC GSP and impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

HYD-6	Implementation of the proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to hydrology and water quality.
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The geographic context used for the cumulative assessment to hydrology, drainage, flooding, and water quality encompasses the subwatersheds within the EIR Study Area: Mud Slough-San Joaquin River subwatershed, Mud Slough subwatershed, and the Lower Los Banos Creek subwatershed (see Figure 4.10-1). New development in these watersheds could increase impervious areas, thus increasing runoff and flows into the storm drainage systems. Potential future development would be required to comply with the Phase II Small MS4 Permit and the City's LID Manual (currently in development), implement BMPs that direct drainage to landscaped areas, and integrate bioretention facilities into the site design. Implementation of these BMPs on a regional basis would reduce cumulative impacts to hydrology and drainage to *less than significant*.

All projects would be required to comply with various LBMC provisions and policies as well as numerous water quality regulations that control construction-related and operational discharge of pollutants into

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stormwater. The water quality regulations implemented by the Central Valley RWQCB take a basin wide approach and consider water quality impairment in a regional context. For example, the NPDES Construction Permit ties receiving water limitations and basin plan objectives to terms and conditions of the permit, and the Phase II Small MS4 Permit requires all the surrounding municipalities to manage stormwater systems and be collectively protective of water quality. Projects in these subwatersheds would implement structural and nonstructural source-control BMPs that reduce the potential for pollutants to enter runoff, and treatment control BMPs that remove pollutants from stormwater. Therefore, cumulative water quality impacts would be less than significant after compliance with these permit requirements, and impacts would not be cumulatively considerable.

The area surrounding the City of Los Banos and the EIR Study Area is primarily agricultural land or wetlands with no associated storm drain systems. The Central Valley RWQCB regulates discharges from runoff or leaching of irrigation water and/or stormwater from irrigated lands through the Irrigated Lands Regulatory Program. Therefore, the stormwater control program and storm drain improvements implemented by the City would not directly or adversely impact the surrounding area.

Projects in the subwatersheds may be constructed within 100-year flood zones or dam inundation zones. Such projects would be mandated to comply with National Flood Insurance Program requirements. In addition, other jurisdictions within these subwatersheds regulate development within flood zones in compliance with FEMA standards to limit cumulative flood hazard impacts. Therefore, cumulative impacts to hydrology, drainage, and flooding would be *less than significant*, and impacts of the proposed project would not be cumulatively considerable.

Significance without Mitigation: Less than significant.

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4.11 LAND USE AND PLANNING

This chapter describes the potential impacts related to land use and planning associated with the adoption and implementation of the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential land use and planning impacts, and identifies General Plan policies that could minimize any potentially significant impacts.

4.11.1 ENVIRONMENTAL SETTING

4.11.1.1 REGULATORY FRAMEWORK

State Regulations

California Housing Element Law

California Housing Element Law¹ includes provisions related to the requirements for housing elements of local government general plans. Among these requirements, some of the necessary parts include an assessment of housing needs and an inventory of resources and constraints relevant to the meeting of these needs. Additionally, in order to ensure that counties and cities recognize their responsibilities in contributing to the attainment of the State housing goals, this section of the Government Code calls for local jurisdictions to plan for and allow the construction of a share of the region's projected housing needs, known as the Regional Housing Needs Allocation (RHNA). The City of Los Banos 2014 to 2023 Housing Element was adopted in July 2016 and is incorporated into the proposed General Plan 2042 by reference.

Merced County Local Agency Formation Commission

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 establishes a Local Agency Formation Commission (LAFCO) for each county in California, and authorizes these commissions to review, approve, or deny proposals for boundary changes and incorporations for cities, counties, and special districts.² The LAFCO establishes a "sphere of influence" (SOI) for cities within their jurisdiction that describes the City's probable future physical boundaries and service area. The Los Banos SOI is regulated by the Merced County LAFCO. The existing and proposed Los Banos SOI is shown on Figure 3-5, *Existing and Proposed Sphere of Influence*, in Chapter 3, *Project Description*, of this Draft Environmental Impact Report (EIR). The City does not propose to annex or de-annex any areas of the SOI as part of the proposed project.

The Merced County LAFCO has a responsibility to exercise their independent judgement while making decisions concerning appropriate local governmental boundaries and service providers. To guide their decisions, the Merced LAFCO has adopted the following four goals:

¹ California Government Code Sections 65580 – 65589.8.

² California Government Code, Section 56000 – 56001.

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1. Planned, well-ordered, and efficient development patterns.
2. Governmental services are delivered efficiently and effectively.
3. The need to provide for urban development is balanced with the conservation of open space and prime agricultural lands.
4. Urban land use patterns maximize the opportunity for local jurisdictions to provide their fair share of regional housing needs for all income levels.

The Cortese-Knox-Hertzberg Act requires that by January 1, 2002, each LAFCO will have established written policies and procedures that incorporate the Legislature's intent to encourage and provide for planned, well-ordered, efficient urban development pattern which discourages urban sprawl, preserves open space and prime agricultural lands, provides housing for person and families of all incomes, and addresses the efficient extension of governmental services (Government Code Section 56300). The Merced County LAFCO Commission has adopted policies that would apply to potential future annexations from the proposed SOI to the Los Banos city limit and for approval of the proposed SOI. The Merced County LAFCo policies are organized in the following categories:

- Agricultural,
- SOI Revisions,
- City and Urban Service District Annexation,
- Rural Service District Change of Organization,
- Independent Special District Formation,
- City Incorporation (pending),
- Extension of Services by Contract (Outside City or District Boundaries), and
- Requests for Inspection and Copying of Public Records.

Regional Regulations

2018 Regional Transportation Plan and Sustainable Communities Strategy

Senate Bill (SB) 375 requires each metropolitan planning organization (MPO) to prepare a sustainable communities strategy (SCS) in its regional transportation plan (RTP). Merced County Association of Governments (MCAG) is the MPO for the Merced County region. MCAG updated and adopted a SCS in its RTP on August 6, 2018 called the *2018 Regional Transportation Plan and Sustainable Communities Strategy for Merced County (2018 RTP/SCS)*.³ The 2018 RTP/SCS works to align transportation and land use planning in order to reduce vehicle miles traveled (VMT) and greenhouse gas (GHG) emissions through modified land use patterns by constructing more infill development in downtowns and centers in close proximity to jobs and services. In addition, the 2018 RTP/SCS emphasizes transportation investments in transportation facilities to improve bicycle and pedestrian mobility.

³ Merced County Association of Government (MCAG). 2018 Regional Transportation Plan & Sustainable Communities Strategy for Merced County, <https://www.mcagov.org/DocumentCenter/View/1731/MCAG-2018-RTP-finaldraft-2018-08-06?bidId=>, accessed April 4, 2022.

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Merced County General Plan

The 2030 Merced County General Plan, adopted in December 2013, is a comprehensive long-range guide for land use in the unincorporated portions of the county, including land outside of Los Banos' city limit but within the SOI. It should be noted that when County land within the SOI is annexed to the City, the land will be subject to the City's General Plan Land Use designation and regulations. County General Plan Land Use designations within the Los Banos proposed SOI (but outside the city limit) are:

- **Agricultural.** Most of the County land within the proposed Los Banos SOI has an agricultural designation.
- **Industrial.** Approximately 20 acres of land within the proposed Los Banos SOI has an industrial designation which permits "manufacturing, research and development, processing, distribution, storage, or the wholesale trade of various materials and products."
- **Commercial.** Approximately 6 acres of land within the proposed Los Banos SOI has a commercial designation which allows retail and personal and professional services.

Merced County Airport Land Use Compatibility Plan

The *Merced County Airport Land Use Compatibility Plan* (Merced County ALUCP) was prepared in accordance with the California State Aeronautics Act (Public Utilities Code Section 21670 et seq.).⁴ The most recent Merced County ALUCP, adopted by the Merced County Airport Land Use Commission (Merced County ALUC) on June 21, 2012, contains the individual Compatibility Plans for each of the five public-use airports in Merced County. The five airports include Castle Airport, Gustine Municipal Airport, Los Banos Municipal Airport, Merced Regional Airport, and Turlock Municipal Airport. As adopted by the Merced County ALUC, the basic function of the Merced County ALUCP is to promote compatibility between each airport and the land uses which surround them to the extent that these areas have not already been devoted to incompatible uses. The Merced County ALUCP accomplishes this function through establishment of a set of compatibility criteria applicable to new development around each airport. The Merced County ALUCP serves as a tool for use by the Merced County ALUC in fulfilling its duty to review airport and adjacent land use development proposals. Neither the Merced County ALUCP nor the ALUC have authority over existing land uses or over operation of the airport.

Chapter 2, *General Policies*, of the Merced County ALUCP, includes a description of the review process for potential future development at and near each airport, the compatibility criteria for land use actions, the compatibility criteria for each airport plan, and the specific compatibility criteria for noise, safety, airspace protection, overflight, and special conditions for land use actions. Chapter 3, *Individual Airport Policies and Compatibility Maps*, includes applicable policies and compatibility maps for each of the five airports. Chapters 4 through 8 provides background data on each of the five airports. Specifically, Chapter 6, *Background Data: Los Banos Municipal Airport and Environs*, includes an overview and a description of the existing airfield system, airport plan status, and aircraft activity for the Los Banos Municipal Airport.

⁴ Merced County, Airport Land Use Commission, 2012. *Merced County Airport Land Use Compatibility Plan*, June 21, accessed at <https://www.co.merced.ca.us/406/Airport-Land-Use-Commission> on February 22, 2022.

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Each local agency has jurisdiction over land uses within an ALUC's planning area, referred to as the Airport Influence Area (AIA). Each local agency is required by State law to modify its general plan and any affected specific plans to be consistent with the Merced County ALUCP. The AIA includes all areas surrounding the airport that are affected by noise and safety considerations. The AIA for the Los Banos Municipal Airport is shown on Figure 3.7, Los Banos Airport Land Use Compatibility Zones, in Chapter 3, Project Description, of this Draft EIR. The AIA is made up of the following five compatibility zones that limit the types of development that can occur in the AIA to prevent hazards to users of the site and to avoid hazards to air navigation.

- **Zone A. Runway Protection Zone and within Building Restriction Line:** The noise impact and safety risk level are very high in this zone.
- **Zone B1. Inner Approach/Departure Area and Adjacent to Runway:** The noise impact and safety risk level are high in this zone.
- **Zone B2. Inner Turning Zone and Outer Approach/Departure Area:** The noise impact is high and safety risk level is moderate in this zone.
- **Zone C. Extended Approach/Departure Area and Primary Traffic Patterns:** The noise impact and safety risk level are moderate in this zone.
- **Zone D. Other Overflight Areas:** The noise impact and safety risk level are moderate in this zone.

Local Regulations

While the City has other local regulations that regulate land use and guide land use decisions, all specific plans, master plans, and zoning in the city must be consistent with the General Plan. The General Plan is the community's overarching policy document that defines a vision for future change and sets the "ground rules" for: locating and designing new projects that enhance the character of the community, expanding the local economy, conserving and preserving environmental resources, improving public services and safety, minimizing hazards, and fostering community health. The General Plan, which includes a vision, guiding principles, goals, policies, and actions, functions as the City's primary land use regulatory tool. It provides a basis for judging whether specific development proposals and public projects are in harmony with General Plan policies. It is the constitution for future change in Los Banos. The General Plan must be used as the basis for all planning-related decisions made by City staff, the Planning Commission, and the City Council. Other decision-making bodies that rely on the General Plan to guide future decisions include the Airport Advisory Commission, Cultural Heritage Commission, Parks and Recreation Commission, Public Works Department, and the Traffic and Safety Committee.

4.11.1.2 EXISTING CONDITIONS

The term "existing land use" refers to the existing built environment, which may be different from the General Plan or Zoning designations that the City applies for planning purposes. Generally, the largest existing land use in the Los Banos city limit is single-family residential neighborhoods. Older residential neighborhoods are found near the Downtown and newer neighborhoods are typically found on the periphery of the city limit. Neighborhoods built within the last 20 years typically include a park and a nearby school to serve residents. In addition, a limited amount of multi-family residential uses, such as

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condominiums and apartments, is dispersed throughout the city, including along the east and west sides of Mercy Springs Road and in the area between downtown and the hospital.

There are commercial developments along major transportation corridors throughout the City, including Los Banos' Downtown, along Pacheco Boulevard, and along Mercy Springs Road. Industrial areas are primarily located along H Street, though there are some industrial areas along Pacheco Boulevard toward the western city limit. There is a large amount of land with public or civic uses spread throughout the city. These uses include schools, parks, City offices, the Los Banos Municipal Airport, and the wastewater treatment plant.

Outside the city limit, the SOI is dominated by agricultural and some single-family residential uses on very large lots. See Chapter 4.2, *Agricultural Resources*, for more information.

4.11.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in a significant land use impact if it would:

1. Physically divide an established community.
2. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.
3. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to land use and planning.

4.11.3 IMPACT DISCUSSION

LU-1	Implementation of the proposed project would not physically divide an established community.
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The physical division of an established community typically refers to the construction of a physical feature or the removal of a means of access that would impair mobility within an existing community or between a community and outlying areas.

Potential future development from implementation of the proposed General Plan 2042 would not result in a change in land use or zoning that would cause the construction or removal of any physical features or means of access throughout the EIR Study Area or the region. The proposed General Plan 2042 would increase development potential in the EIR Study Area; however, potential future development would occur in the form of infill/intensification on sites already developed and/or underutilized, and/or in close proximity to existing development and infrastructure. While the proposed General Plan 2042 does not prohibit development opportunities outside of infill locations, it does require the City to provide for orderly, well-planned, and balanced development as identified in the General Plan 2042 Land Use (LU) Element in Goal LU-1. Policy LU-P1.3, which supports Goal LU-1, requires that any land requested to be annexed be contiguous with the existing city limits, within the Urban Growth Boundary, and within the Sphere of Influence. Additionally, the proposed General Plan 2042 maintains the existing roadway patterns and would not include any new major roadways or other physical features through existing

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neighborhoods that would create new physical barriers in the EIR Study Area. Therefore, implementation of the proposed project would not physically divide an established community. Impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

LU-2	Implementation of the proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.
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Land-Use Plans, Policies, and Regulations

While the proposed General Plan 2042 is the primary planning document for the City of Los Banos and the proposed update is intended to ensure consistency between the General Plan, Zoning Ordinance, and federal and state laws, implementation of the General Plan 2042 has the potential to conflict with “land use” plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. For the purposes of this EIR a “land use” plan is a policy, or regulation that addresses how land is used. The following discusses the proposed General Plan 2042 and its relationship to the land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect as listed in Section 4.11.1.1, *Regulatory Framework*.

California Housing Element Law

The City of Los Banos 2014–2023 Housing Element was adopted in July 2016. The next housing element update is currently underway in a separate process from that of the General Plan 2042, with adoption before January 31, 2024. As described in Chapter 3, *Project Description*, of this Draft EIR, the Housing Element has already undergone separate environmental review as part of its adoption process; however, the residential development that could occur under the Housing Element is incorporated into the residential development analyzed as part of this EIR. The proposed General Plan 2042 Land Use (LU) Element includes goals, policies, and actions that require decision makers to support adequate housing in Los Banos.

- **Goal LU-2.** Foster neighborhoods with exceptional amenities and design, broad-based opportunity, and a shared sense of identity.
 - **Policy LU-P2.2.** Create neighborhoods that are safe and welcoming for people of all life stages, family sizes, and income levels.
 - **Action LU-A2.3.** Adopt ordinances that preserve affordable housing options while ensuring that housing meets habitability requirements and City codes.
 - **Action LU-A2.4.** Maintain appropriate density bonuses for developers meeting State criteria for affordable housing and create an additional density bonus for projects undertaking elective off-site improvements (such as streetscape improvements) that further the City’s community design and/or open space objectives. This latter bonus cannot be combined with the affordable housing

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bonus. Off-site improvements directly resulting from a project's impacts, as specified in the Zoning Ordinance, may still be required; the bonus is intended for improvements that go beyond the required minimum.

- **Goal LU-6.** Develop a vibrant, mixed-use Downtown that is the pride of the community.
 - **Policy LU-P6.1.** Promote the Downtown as a destination for commerce and entertainment, with office and high-quality housing to complement retail activity and infuse the area with daytime, evening, and weekend activity.
 - **Policy LU-P6.4.** Incentivize and encourage infill development, adaptive reuse of structures, and development on underutilized land to serve a variety of uses.
 - **Policy LU-P6.5.** Allow a range of medium- to high-density residential, live/work, and Business Commercial uses to support Downtown.
 - **Action LU-A6.1.** Adopt flexible zoning and encourage a mix of residential, retail, and office in the heart of Downtown.
 - **Action LU-A6.3.** Target individual vacant and underutilized infill sites that are not part of larger neighborhood developments for additional high-density residential development.

Accordingly, the proposed General Plan 2042 would not conflict with or be inconsistent with State Housing Law resulting in a significant environmental impact.

Merced County Local Agency Formation Commission

The proposed Los Banos SOI is regulated by the Merced County LAFCO and any proposed jurisdictional boundary changes, including annexations and detachments of territory to and/or from the City, is subject to the Merced County LAFCO review and approval. The Merced County LAFCO also must review any contractual service agreements and determine the SOI. Although the City does not propose to annex or de-annex any areas of the SOI as part of the proposed General Plan 2042, annexation proposals could occur during the buildout horizon of the proposed General Plan. The proposed project includes the proposed Annexation Ordinance that, as described in detail in Chapter 3, *Project Description*, of this Draft EIR, states the application eligibility criteria and the findings necessary for approval. The proposed Annexation Ordinance also describes the required content of Specific Plans in order for those areas to be annexed into the city limit. To be eligible for annexation, a property must be contiguous with existing city limits, within the Urban Growth Boundary, and at least 75 percent within the Sphere of Influence. The annexation must be consistent with the policies of the City's general plan and all appropriate City development standards and must be processed under an application for a specific plan funded fully by the applicant that includes zoning for the subject area and that may also include a development agreement.

The proposed General Plan 2042 Land Use (LU) Element; Parks, Open Space, and Conservation (P) Element; and Public Facilities and Services (PFS) Element include goals, policies, and actions that require local planning and development decisions to consider impacts from annexations from the SOI to the city limit. The following goals and policies would serve to minimize impacts from annexations and support the Merced County LAFCO mission to encourage and provide for planned, well-ordered, efficient urban development pattern which discourages urban sprawl, preserves open space and prime agricultural lands,

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provides housing for person and families of all incomes, and addresses the efficient extension of governmental services:

- **Goal LU-1.** Provide for orderly, well-planned, and balanced development.
 - **Policy LU-P1.2.** Maintain a well-defined compact urban form, with a defined urban growth boundary and development intensities on land designated for urban uses.
 - **Policy LU-P1.3.** Require that any land requested to be annexed be contiguous with the existing city limits, within the urban growth boundary, and within the sphere of influence.
 - **Policy LU-P1.4.** Require lands outside, but adjacent to, the current city limits to annex to the City of Los Banos prior to approval of new development or provision of any City services.
 - **Policy LU-P1.5.** Prior to annexation, the City must find that adequate police, fire, and other public safety services can be provided.
 - **Policy LU-P1.8.** Require areas annexed to the City to be served by City utilities. Prohibit new wells and septic systems to serve urban development within the city limits. Conversely, do not provide utility services, water, and sanitary sewer to new development outside of the city limits unless annexation is approved. Prior to annexation, the City must find that adequate water supply and service and wastewater treatment and disposal capacity can be provided. Existing water supplies must remain with the land and be transferred to the City upon annexation approval.
 - **Policy LU-P1.9.** Coordinate land use planning efforts between City departments and with local institutions and regional agencies.
 - **Action LU-A1.1.** Seek Local Agency Formation Commission (LAFCO) approval of a sphere of influence (SOI) line corresponding with the General Plan designation for the proposed SOI.
- **Goal LU-3.** Provide a clear process for annexation proposals that ensures the proposals meet the requirements and needs of the Los Banos community.
 - **Policy LU-P3.1.** Annexation proposals are required to meet the following basic requirements:
 - a. **Location.** Require that any land requested to be annexed be contiguous with the existing city limits, within the urban growth boundary, and at least 75 percent within the sphere of influence.
 - b. **Consistency.** Require that any land requested to be annexed is consistent with the policies of the City's General Plan and all appropriate City development standards.
 - c. **Timing of Development.** Require lands outside, but adjacent to, the current city limits to annex to the City of Los Banos prior to approval of new development.
 - d. **Utilities.** Require areas annexed to the City to be served by City utilities. Prohibit new wells and septic systems to serve urban development within the city limits. Conversely, do not provide City utility services, water, and sanitary sewer to new development outside of the city limits unless annexation is approved. Prior to annexation, the City must find that adequate water supply and service and wastewater treatment and disposal capacity can be provided. Existing water supplies must remain with the land and be transferred to the City upon annexation approval.
 - e. **Public Safety.** Prior to annexation, the City must find that adequate police, fire, and other public safety services can be provided.

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- f. **Mitigation.** Require that new development projects include full mitigation of impacts to parks and recreational services, police and fire services, and public infrastructure, both on- and off-site.
- **Policy LU-P3.2.** Require that specific plans be prepared for new areas proposed for annexation. Specific plans must provide a coordinated, enforceable plan for land use, circulation, public facilities, and public services throughout the entire area. Specific plans must also be consistent with all of the goals and policies of this General Plan and contribute toward achieving Los Banos' vision. Prohibit individual, piecemeal developments within future annexation areas.
- **Goal LU-4.** Protect and enhance Los Banos' image and unique sense of place.
 - **Policy LU-P4.5.** Require development to transition in density, with lot sizes increasing to the south as a buffer for the adjoining rural and agricultural districts.
- **Goal P-7.** Protect and preserve agricultural resources around Los Banos.
 - **Policy P-P7.1.** Promote preservation of agriculture within the Planning Area.
- **Policy P-P7.2.** Work with the County and with the Grassland Water District to preserve agricultural uses outside the Urban Growth Boundary.
- **Policy P-P7.3.** Support agricultural conservation easement programs managed by other public, private, and non-profit organizations.
 - **Policy P-P7.4.** Require developers of residential developments adjoining agricultural land to provide, fund, and maintain a physical buffer to ensure that agricultural practices will not be adversely affected.
 - **Action P-A7.1.** Explore feasible and implementable policies and mitigation measures to address impacts to agricultural land, including:
 - Participating in a County-established agricultural mitigation program that preserves one acre of farmland for every acre converted.
 - Establishing or participating in a program to restore or improve land in Merced County to a level that meets the criteria of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, in order to create new farmland in addition to preserving existing farmland.
 - Establishing a local right-to-farm ordinance.
- **Action P-A7.2.** Establish and maintain a Grasslands Resources Overlay Zone (GROZ) for the inter-canal area between the San Luis Canal and the Santa Fe Canal north of the city limit where lands within the GROZ (allowing for the bypass) shall remain in agricultural and open space uses.

The proposed project acknowledges that the City will follow adopted Merced County LAFCO policies to review proposed SOI changes and annexation requests. Accordingly, neither the proposed General Plan 2042 nor the proposed Annexation Ordinance would conflict with or be inconsistent with the Merced County LAFCO policies, and the impact would be less than significant.

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2018 Regional Transportation and Sustainability Community Strategy

While the 2018 RTP/SCS is not intended to override local land use control, it provides guidance to the local agencies such as Los Banos that focuses on achieving the State's GHG and VMT reduction goals by constructing more infill development in downtowns and centers in close proximity to jobs and services. As discussed above under the subheading "California Housing Element Law," the proposed General Plan 2042 Land Use (LU) Element includes goals, policies, and actions that require decision makers to support adequate housing in Los Banos, including infill housing that would support the charge of the 2018 RTP/SCS. Additionally, the proposed General Plan 2042 includes Action LU-A1.6, which requires the City to participate in the MCAG regional planning programs and coordinate City plans and programs with those of MCAG, including the 2018 RTP/SCS and future updates, and work with non-profit organizations also engaging in these planning programs. Accordingly, the proposed General Plan 2042 would not conflict with or be inconsistent with the MCAG's 2018 RTP/SCS resulting in a significant environmental impact.

Merced County General Plan

The proposed General Plan 2042 Land Use (LU) Element maintains consistency with the *Merced County General Plan* through goals, policies, and actions that ensure land use planning decisions inside and adjacent to the Los Banos city limits do not conflict with one another. The following goal, policies, and actions ensure a collaborative process as potential future development outside the Los Banos city limits occurs:

- **Goal LU-1.** Provide for orderly, well-planned, and balanced development.
 - **Policy LU-P1.3.** Require that any land requested to be annexed be contiguous with the existing city limits, within the Urban Growth Boundary, and within the Sphere of Influence.
 - **Policy LU-P1.4.** Require lands outside, but adjacent to, the current city limits to annex to the City of Los Banos prior to approval of new development or provision of any City services.
 - **Action LU-A1.5.** Provide comments to Merced County on proposed significant development projects within the Planning Area to request consistency with this General Plan and other City regulations.

Because land outside the city limits is currently subject to county land use regulations, and would only become under Los Banos land use jurisdiction upon annexation, only one set of land use policies apply at a given time, and there cannot be a conflict between the City and Merced County General Plan. As a result, adoption and implementation of the proposed General Plan 2042 would not conflict with or be inconsistent with the Merced County General Plan resulting in a significant environmental impact.

Merced County Airport Land Use Compatibility Plan

The Los Banos Municipal Airport is located within both city limits and SOI. Land use compatibility with the airport is regulated by the Merced County ALUCP. The City may relocate the Los Banos Municipal Airport to another site at some future point in time. However, until the airport is relocated, pursuant to the California Public Utilities Code Section 21676, development of land and changes in land use around the airport must be consistent with the ALUCP. The proposed General Plan 2042 Land Use (LU) Element

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includes a goal and policy that require local planning and development decisions to consider impacts from development near the airport until such time that it is moved. The following goal and policies would serve to minimize impacts from development in close proximity to the airport in its current location:

- **Goal LU-7.** Nurture individual neighborhoods by adopting tailored Land Use policies that address the needs of Los Banos' subareas.
- **Policy LU-P7.8.** Until such time as the airport is relocated, ensure that proposed residential, commercial, and industrial uses near the airport be consistent with Los Banos Municipal Airport Plan and the Merced County Airport Land Use Compatibility Plan.

Implementation of Policy LU-P7.8 would ensure that proposed residential, commercial, and industrial uses near the airport would be consistent with the Merced County ALUCP. Therefore, adoption and implementation of the proposed General Plan 2042 would not conflict with the Merced County ALUCP.

In summary, the proposed project is the primary planning document for the City of Los Banos. The proposed General Plan 2042 is intended to ensure consistency between the General Plan, Zoning Ordinance, and federal and state laws. Because the proposed General Plan 2042 is the overriding planning document for the City, and because the proposed General Plan 2042 involves amending the current General Plan and the Zoning Ordinance, the impact would be *less than significant*.

Significance without Mitigation: Less than significant.

Non-Land-Use Plans, Policies, and Regulations

Plans, policies, and regulations concerning a wide range of topics can also have direct and indirect effects on land use decision-making. The proposed General Plan 2042's potential to conflict with other applicable plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect are discussed in detail in the other environmental topic chapters of this Draft EIR. Specifically, these discussions are in Chapter 4.3, *Air Quality*; Chapter 4.4, *Biological Resources*; Chapter 4.5, *Cultural and Tribal Cultural Resources*; Chapter 4.8, *Greenhouse Gas Emissions*; Chapter 4.9, *Hazards and Hazardous Materials*; Chapter 4.10, *Hydrology and Water Quality*; Chapter 4.12, *Noise*; Chapter 4.13, *Population and Housing*; Chapter 4.14, *Public Services, Parks, and Recreation*; Chapter 4.15, *Transportation*; Chapter 4.16, *Utilities and Service Systems*; and Chapter 4.17, *Wildfire*. Some of these key regulations include:

- **Air Quality.** San Joaquin Valley Unified Air Pollution Control District (SJVAPCD) has prepared several plans to attain the National ambient air quality standards (AAQS) and California AAQS. The air quality management plans (AQMP) prepared by SJVAPCD provide the framework for San Joaquin Valley Air Basin to achieve attainment of the State and federal AAQS.
- **Biological Resources.** The federal Endangered Species Act (ESA) and California ESA protects plants and animals that are listed as endangered or threatened by the United States Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), and the California Department of Fish and Wildlife. The Migratory Bird Treaty Act (MBTA) protects migratory birds, any of their parts, eggs, and nests. The Bald and Golden Eagle Protection Act of 1940, as amended, provides for the protection of bald eagles and golden eagles. The federal Clean Water Act (CWA) and State CWA protect habitat for

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animals and plants. The Native Plant Protection Act (NPPA) of 1977 was created with the intent to “*preserve, protect and enhance rare and endangered plants in this State.*”

- **Cultural and Tribal Cultural Resources.** The National Historic Preservation Act defines the responsibilities of federal agencies to protect and preserve Historic Properties. The American Indian Religious Freedom Act and the Native American Graves Protection and Repatriation Act of 1990 protect Native American artifacts. California Government Code Section 65352.3-5, formerly known as Senate Bill (SB) 18, and Assembly Bill (AB) 52 are both intended to protect Native American resources as well.
- **Greenhouse Gas Emissions and Vehicle Miles Traveled.** The MCAG 2018 RTP/SCS provides guidance to reduce VMT and thus reduce GHG emissions to meet the State’s goals.
- **Airport Hazards.** The Merced County ALUCP contains the individual Compatibility Plans for each of the five public-use airports in Merced County, including the Los Banos Municipal Airport. The basic function of the Merced County ALUCP is to promote compatibility between each airport and the land uses which surround them through establishment of a set of compatibility criteria applicable to new development around each airport.
- **Hydrology and Water Quality.** The federal and State Clean Water Acts include regulations for protecting water quality. The City of Los Banos is within the jurisdiction of the Central Valley RWQCB (Region 5). The Central Valley RWQCB addresses region-wide water quality issues through the creation and triennial update of the *Water Quality Control Plan* for the Central Valley Region (Basin Plan).
- **Natural Hazards.** The Merced County Office of Emergency Services, together with several jurisdictions in Merced County, including the City of Los Banos, prepared the *Multi-jurisdictional Hazard Mitigation Plan* (MJHMP). The MJHMP was prepared in accordance with the Disaster Mitigation Act of 2000 and followed the Federal Emergency Management Agency (FEMA) 2011 Local Hazard Mitigation Plan guidance. The MJHMP, adopted in 2014, includes hazard mitigation goals, strategies, and priorities, and provides a comprehensive assessment of the area’s hazards and vulnerabilities.
- **Population and Housing.** The MCAG is the official comprehensive planning agency for the Merced County area and is responsible for taking the overall RHNA provided by the State and preparing a formula for allocating that housing need by income level across its jurisdiction.
- **Utilities and Service Systems.** The National Pollutant Discharge Elimination System (NPDES) permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States, including discharges from municipal separate storm sewer systems.

For a complete list and description of the applicable non-land-use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect please see the individual chapters of this Draft EIR listed previously.

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LU-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 land use and planning.
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The geographic context for the cumulative land use and planning effects occurs from potential future development under the proposed project combined with impacts from the projected growth in the rest of Merced County and the surrounding region, as forecast by MCAG.

The land use analyses find that the proposed project would not divide an established community or conflict with established plans, policies, and regulations, in or outside the city of Los Banos, adopted for the purpose of avoiding or mitigating an environmental effect. Potential future development that may occur from implementation of the proposed General Plan would not create substantial land use impacts.

Development is likely to continue to occur in surrounding cities and in the Merced County region as well. However, such development is taking place in already urbanized areas as infill development and would not require significant land use changes that would create land use conflicts, nor would they divide communities. Growth from new development is expected to be within the projected growth forecast by MCAG.

Therefore, the proposed project would not result in a cumulatively considerable contribution to cumulative impacts related to land use changes. Impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

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4.12 NOISE

This chapter describes the potential noise and vibration impacts associated with the adoption and implementation of the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential noise and vibration impacts, and identifies General Plan policies and feasible mitigation measures that could minimize any potentially significant impacts. Detailed noise modeling results are shown in Appendix F, *Noise Data*, of this Draft Environmental Impact Report (EIR).

4.12.1 ENVIRONMENTAL SETTING

4.12.1.1 TERMINOLOGY

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

- **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 the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A measure of sound on a logarithmic scale.
- **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}).** The mean of the noise level, energy averaged over the measurement period.
- **L_{max} .** The maximum noise level during a measurement period.
- **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). This is also 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.”
- **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 dB added to the levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the sound levels occurring during the period 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 dB. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent/interchangeable.
- **Peak Particle Velocity (PPV).** The peak rate of speed at which soil particles move (e.g., inches per second) due to ground vibration.
- **Noise-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.

NOISE

4.12.1.2 SOUND FUNDAMENTALS

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in Hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the loudness of sound is the decibel (dB). Changes of 1 to 3 dB are detectable under quiet, controlled conditions and changes of less than 1 dBA are usually indiscernible. A 3 dB change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dB is readily discernable to most people in an exterior environment whereas a 10 dBA change is perceived as a doubling (or halving) of the sound.

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all and are “felt” more as a vibration. Similarly, while 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. Since the human ear is not equally sensitive to sound at all frequencies, a special frequency dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by weighting frequencies in a manner approximating the sensitivity of the human ear.

Noise is defined as unwanted sound and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Based on these known adverse effects, the federal government, the State of California, and many local governments have established criteria to protect public health and safety and to prevent disruption of certain human activities.

Sound Measurement

Sound pressure is measured through the A-weighted measure to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear’s de-emphasis of these frequencies. Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. On a logarithmic scale, an increase of 10 dB is 10 times more intense than 1 dB, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud).

Sound levels are generated from a source and their decibel level decreases as the distance from that source increases. 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 dB for each doubling of distance from the source. 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 dB for each doubling of distance in a hard site environment. Line source noise in a relatively flat environment with absorptive vegetation decreases by 4.5 dB for each doubling of distance.

NOISE

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, 8, and 25 percent of the time, or 1, 5, and 15 minutes per hour. These “ L_n ” values are typically used to demonstrate compliance for stationary noise sources with a city’s noise ordinance, as discussed subsequently.

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 our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA could result in permanent hearing damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. Table 4.12-1, *Typical Noise Levels*, shows typical noise levels from familiar noise sources.

TABLE 4.12-1 TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level(dBA)	Common Indoor Activities
Onset of physical discomfort	120+	
	110	Rock Band (near amplification system)
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	
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: California Department of Transportation (Caltrans). 2013, September. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*.

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4.12.1.3 VIBRATION FUNDAMENTALS

Vibration is an oscillating motion. Like noise, vibration is transmitted in waves, but in this case through earth or solid objects. Unlike noise, vibration is typically felt rather than heard.

Vibration can be either natural as in the form of earthquakes, volcanic eruptions, or landslides, or human-made as from explosions, heavy machinery, or trains. Both natural and human-made vibration may be continuous such as from operating machinery, or impulsive as from an explosion.

As with noise, vibration can be described by both its amplitude and frequency. Amplitude may be characterized in three ways including displacement, velocity, and acceleration. Particle displacement is a measure of the distance that a vibrated particle travels from its original position. For the purposes of soil displacement it is typically measured in inches or millimeters. Particle velocity is the rate of speed at which soil particles move in inches per second or millimeters per second. Particle acceleration is the rate of change in velocity with respect to time and is measured in inches per second or millimeters per second. Typically, particle velocity (measured in inches or millimeters per second) and/or acceleration (measured in gravities) are used to describe vibration. Table 4.12-2, *Human Reaction to Typical Vibration Levels*, presents the human reaction to various levels of peak particle velocity.

TABLE 4.12-2 HUMAN REACTION TO TYPICAL VIBRATION LEVELS

Vibration Level Peak Particle Velocity (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

Note: in/sec = inches per second

Source: California Department of Transportation (Caltrans). 2020, April. *Transportation and Construction Vibration Guidance Manual*.

Vibrations also vary in frequency and this affects perception. Typical construction vibrations fall in the 10 to 30 Hz range and usually occur around 15 Hz. Traffic vibrations exhibit a similar range of frequencies; however, due to their suspension systems, buses often generate frequencies around 3 Hz at high vehicle speeds. It is less common, but possible, to measure traffic frequencies above 30 Hz.

The way in which vibration is transmitted through the earth is called propagation. As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level striking a given point is reduced with the distance from the energy source. This geometric spreading loss is

inversely proportional to the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

4.12.1.4 REGULATORY FRAMEWORK

Federal Regulations

Federal Highway Administration

Proposed federal or federal-aid highway construction projects at a new location, or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes, requires an assessment of noise and consideration of noise abatement pursuant to 23 Code of Federal Regulations Part 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise." The Federal Highway Administration (FHWA) has adopted noise abatement criteria for sensitive receivers such as picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals when "worst-hour" noise levels approach or exceed 67 dBA L_{eq} . The California Department of Transportation (Caltrans) has further defined approaching the NAC to be 1 dBA below the NAC for noise sensitive receivers identified as Category B activity areas (e.g., 66 dBA L_{eq} is considered approaching the NAC).¹

United States Environmental Protection Agency

In addition to FHWA standards, the United States Environmental Protection Agency (USEPA) has identified the relationship between noise levels and human response. The USEPA has determined that over a 24-hour period, a L_{eq} of 70 dBA will result in some hearing loss. Interference with activity and annoyance will not occur if exterior levels are maintained at a L_{eq} of 55 dBA and interior levels at or below 45 dBA. While 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 the needs of the community.

The USEPA also has set 55 dBA L_{dn} as the basic goal for exterior residential noise intrusion. However, other federal agencies, in consideration of their own program requirements and goals, as well as difficulty of actually achieving a goal of 55 dBA L_{dn} , have settled on the 65 dBA L_{dn} level as their standard. At 65 dBA L_{dn} , activity interference is kept to a minimum, and annoyance levels are still low. It is also a level that can realistically be achieved.

Occupational Health and Safety Administration

The federal government regulates occupational noise exposure common in the workplace through the Occupational Health and Safety Administration (OSHA) under the USEPA. Such limitations would apply to the operation of construction equipment and could also apply to any proposed industrial land uses. Noise

¹ Caltrans Division of Environmental Analysis, May 2011, *Traffic Noise Analysis Protocol*.

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exposure of this type is dependent on work conditions and is addressed through a facility's Health and Safety Plan, as required under OSHA, and is therefore not addressed further in this analysis.

United States Department of Housing and Urban Development

The US Department of Housing and Urban Development (HUD) has set a goal of 65 dBA L_{dn} as a desirable maximum exterior standard for residential units developed under HUD funding. (This level is also generally accepted within the State of California.) While HUD does not specify acceptable interior noise levels, standard construction of residential dwellings typically provides in excess of 20 dBA of attenuation with the windows closed. Based on this premise, the interior L_{dn} should not exceed 45 dBA.

Aircraft Noise Standards

The Federal Aviation Administration (FAA) Advisory Circular Number 150 5020 2, entitled "Noise Assessment Guidelines for New Helicopters" recommends the use of a cumulative noise measure, the 24-hour equivalent sound level [$L_{eq}(24)$], so that the relative contributions of the heliport and other sound sources within the community may be compared. The $L_{eq}(24)$ is similar to the L_{dn} used in assessing the impacts of fixed wing aircraft. The helicopter $L_{eq}(24)$ values are obtained by logarithmically adding the single-event level (SEL) values over a 24-hour period.

Public Law 96 193 also directs the FAA to identify land uses which are "normally compatible" with various levels of noise from aircraft operations. Because of the size and complexity of many major hub airports and their operations, Federal Aviation Regulation Part 150 identifies a large number of land uses and their attendant noise levels. These recommended noise levels are included in Table 4.12-3, *Federal Aviation Administration Normally Compatible Community Sound Levels*.

TABLE 4.12-3 FEDERAL AVIATION ADMINISTRATION NORMALLY COMPATIBLE COMMUNITY SOUND LEVELS

Type of Area	$L_{eq}(24)$
Residential	57
Suburban	67
Urban	72
City	72
Commercial	72
Industrial	77

Notes: The L_{eq} is the Equivalent Continuous Noise Level, which describes sound levels that vary over time, resulting in a single decibel value that takes into account the total sound energy over the period of time of interest.

Source: Federal Aviation Administration (FAA) Advisory Circular Number 150 5020 2, 1983.

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. These

suggested noise and land use compatibility standards provide local governments with a basis for setting limits appropriate to their jurisdiction.

California Building Code

The State of California provides a minimum standard for building design through Title 24 of the California Code of Regulations, commonly referred to as the California Building Code (CBC). The CBC is in Part 2 of Title 24. The CBC is updated on a three-year cycle. It is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions under specific amendment rules prescribed by the State Building Standards Commission. The CBC Volume 1, Chapter 12, *Interior Environment*, Section 1207.11.2, *Allowable Interior Noise Levels*, requires that interior noise levels attributable to exterior sources shall not exceed 45 dBA in any habitable room. The noise metric is evaluated as either the L_{dn} or the CNEL, consistent with the noise element of the local general plan.

California Building Code: CALGreen

The California Building Standards Commission adopted the California Green Building Standards Code, also known as CALGreen. As part of the CBC, CALGreen is in Part 11 of Title 24. The State of California's noise insulation standards for nonresidential uses are codified in CALGreen. The CALGreen noise standards are applied to new or renovation construction projects in California to control interior noise levels resulting from exterior noise sources. Development projects may use either the prescriptive method (CALGreen Section 5.507.4.1) or the performance method (CALGreen Section 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 $L_{eq(1hr)}$.

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 in locations where the aircraft exterior noise level exceeds 65 dBA CNEL are generally incompatible, unless an aviation easement for aircraft noise has been acquired by the airport proprietor, or the residence is a high-rise apartment or condominium that has an interior CNEL of 45 dBA or less in all habitable rooms despite aircraft noise 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 within an airport influence area to disclose that fact to the person buying the property.

Regional Regulations

Merced Municipal Airport Compatibility Land Use Plan

As discussed in greater detail in Chapter 4.9, *Hazards and Hazardous Materials*, of this Draft EIR, the *Merced County Airport Land Use Compatibility Plan* (Merced County ALUCP) was prepared in accordance

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with the California State Aeronautics Act (Public Utilities Code Section 21670 et seq.).² The most recent Merced County ALUCP, adopted by the Merced County Airport Land Use Commission (Merced County ALUC) on June 21, 2012, contains the individual Compatibility Plans for each of the five public-use airports in Merced County. Chapter 3, *Individual Airport Policies and Compatibility Maps*, includes applicable policies and compatibility maps for each of the five airports. Chapter 6, *Background Data: Los Banos Municipal Airport and Environs*, includes an overview and a description of the existing airfield system, airport plan status, and aircraft activity for the Los Banos Municipal Airport.

Each local agency has jurisdiction over land uses within an ALUC's planning area, referred to as the Airport Influence Area (AIA). The AIA includes all areas surrounding an airport that are affected by noise and safety considerations. The AIA for the Los Banos Municipal Airport is shown on Figure 3-7, *Los Banos Municipal Airport Land Use Compatibility Zones*, in Chapter 3, *Project Description*, of this Draft EIR. The AIA is made up of the following five compatibility zones that limit the types of development that can occur in the AIA to prevent noise hazards.

- **Zone A. Runway Protection Zone and within Building Restriction Line:** The noise impact and safety risk level are very high in this zone.
- **Zone B1. Inner Approach/Departure Area and Adjacent to Runway:** The noise impact and safety risk level are high in this zone.
- **Zone B2. Inner Turning Zone and Outer Approach/Departure Area:** The noise impact is high and safety risk level is moderate in this zone.
- **Zone C. Extended Approach/Departure Area and Primary Traffic Patterns:** The noise impact and safety risk level are moderate in this zone.
- **Zone D. Other Overflight Areas:** The noise impact and safety risk level are moderate in this zone.

Local Regulations

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives pertaining to noise. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions related to noise impacts are included in Title 9, *Planning and Zoning*. Specifically, the City has established noise standards under Chapter 3, *Zoning*, in Article 27, *Noise Control*. Article 27 includes noise measurement criteria, exterior noise standards, air conditioning and refrigeration noise standards, and noise exemptions to the provisions of the article. Table 4.12-4, *Exterior Noise Standards, dBA*, summarizes the LBMC exterior noise standards.

² Merced County, Airport Land Use Commission, 2012. *Merced County Airport Land Use Compatibility Plan*, June 21, accessed at <https://www.co.merced.ca.us/406/Airport-Land-Use-Commission> on February 22, 2022.

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TABLE 4.12-4 EXTERIOR NOISE STANDARDS, DBA

Cumulative Number of Minutes in 1- hour Period	Residential/Noise Sensitive ^a	Residential/Noise Sensitive ^a	Commercial/Industrial
	7:00 am to 10:00 pm	10:00 pm to 7:00 am	Any Time
30	55	45	70
15	60	50	75
5	65	55	80
1	70	60	85
0	75	65	90

Notes: If a measured ambient noise level without an alleged offensive noise source in operation exceeds an applicable noise level standard, the applicable standard or standards shall be adjusted so as to equal the ambient noise level. Each of the noise level standards specified in the table shall be reduced by 5 dB for pure tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.

a. Includes schools, hospitals, churches, and public libraries.

Source: Los Banos Municipal Code Section 9-3.2704.

In addition to exterior noise standards, residential air-conditioning and refrigeration systems installed after December 4, 1987, shall not exceed 50 dBA.

Exceptions to Article 27 are:

- Activities conducted in public parks, public playgrounds, and public or private school grounds, including, but not limited to, school athletic, school entertainment, or civic events;
- Any mechanical device, apparatus, or equipment used, related to, or connected with emergency activities or emergency work or the maintenance of public utilities or public roads and streets;
- Noise sources associated with construction provided such activities do not take place before 7:00 a.m. or after 9:00 p.m. on any day, except Saturday or Sunday, or before 8:00 a.m. or after 5:00 p.m. on Saturday or Sunday;
- Noise sources associated with the maintenance of residential property provided such activities take place between the hours of 7:00 a.m. and 9:00 p.m. on any day, except Saturday or Sunday, or between the hours of 8:00 a.m. and 9:00 p.m. on Saturday or Sunday;
- Noise sources associated with existing food processing, agricultural packing, or dairy or other industrial or commercial operations provided the noise levels generated by such operations do not exceed current levels. Any new construction or expansion (but not the repair or replacement of existing equipment) of such operations shall not exceed the exterior noise level standards set forth in Section 9-3.2704 of this article.

Title 9, *Planning and Zoning*, of the LBMC also includes Article 17, *Traffic Development Impact Fees*. As described in Section 9-2.1701, *Authority, General Purpose, and Definitions*, the purpose of this article to provide fees to be used for traffic management. Fees are imposed on all new development and

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redevelopment at established rates (Section 9-2.1702, *Traffic Impact Fees*). Pursuant to 9-2.1703, *Requirements*, the payment of traffic impact fees is required for the issuance of a building permit for new development and redevelopment in accordance with the adopted traffic impact fee schedule.

4.12.1.5 EXISTING CONDITIONS

Primary noise sources in the EIR Study Area include State Route (SR)-33/Pacheco Boulevard, SR-165, traffic on local roadways, the Los Banos Municipal Airport, and industrial land uses such as the California Dairies industrial plant on Pacheco Boulevard. In commercial and retail areas, truck loading docks can be a source of localized noise.

Noise-Sensitive Receptors

Certain land uses, such as residences, schools, and hospitals, are particularly sensitive to noise and vibration. Noise sensitive receptors within the EIR Study Area 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 that are likely to be disturbed by noise, such as reading, studying, sleeping, resting, or otherwise engaging in quiet or passive recreation. Commercial and industrial uses are not particularly sensitive to noise or vibration.

Ambient Noise Measurements

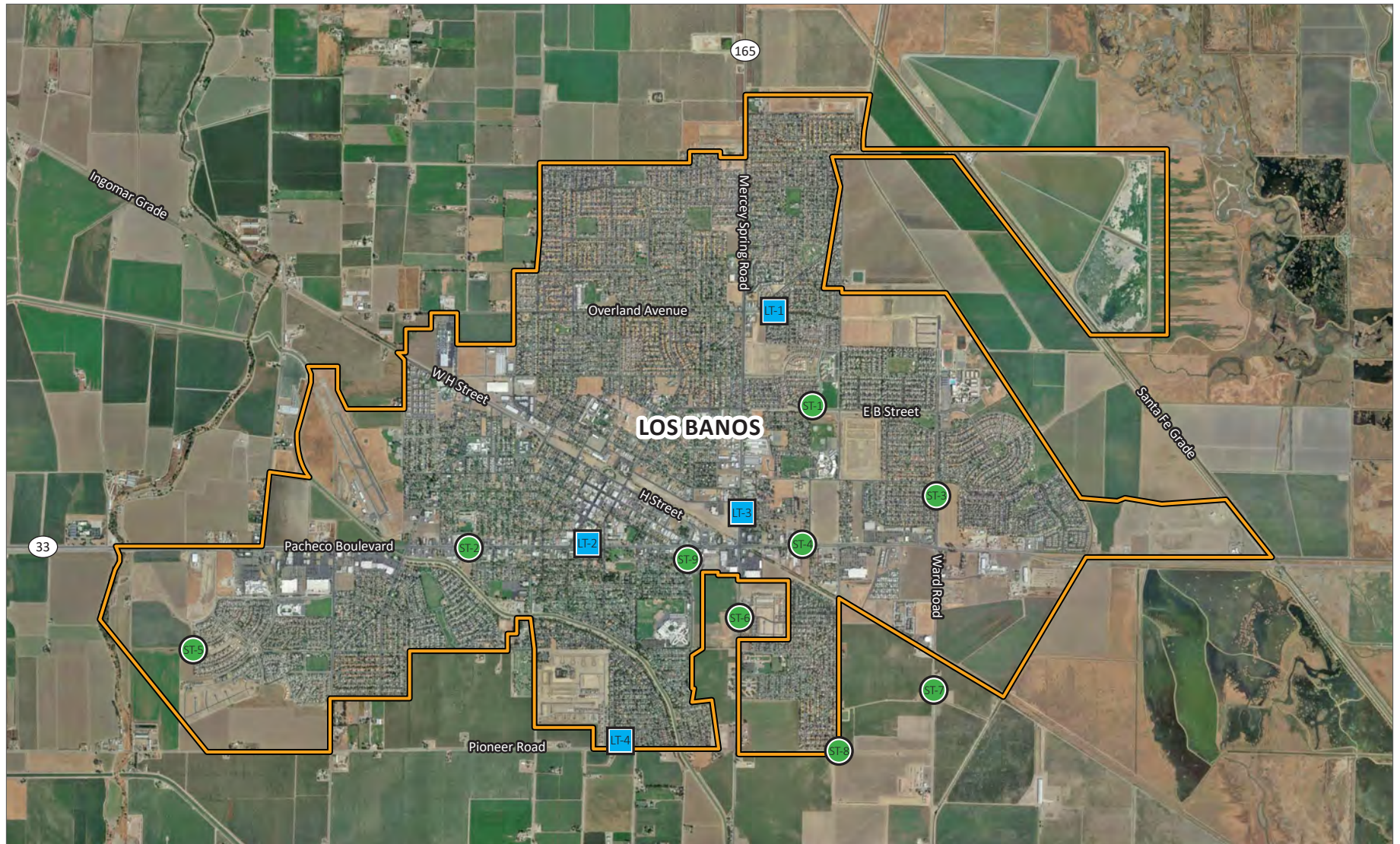
Ambient noise monitoring was conducted within the EIR Study Area by PlaceWorks in January 2022 to determine a baseline noise level at different environments. Measurements were made during weekday periods when the EIR Study Area is expected to be most active. Long-term (48-hour) measurements were conducted at 4 locations within the EIR Study Area, and short-term (10+ minute) measurements were conducted at 9 locations in the EIR Study Area. All measurements were conducted from Wednesday, January 19 through Friday, January 21, 2022. Short-term measurements were generally made during afternoon (3:00 p.m. to 7:00 p.m.) peak commute hours.

Meteorological conditions during the measurement periods were favorable for outdoor sound measurements and were noted to be representative of the typical conditions for the season. All sound level meters were equipped with a windscreen during measurements.

All sound level meters used for noise monitoring satisfy the American National Standards Institute standard for Type 1 instrumentation.³ The sound level meters were set to “slow” response and “A” weighting (dBA). The meters were calibrated prior to and after the monitoring period. All measurements were at least 5 feet above the ground and away from reflective surfaces. Noise measurement locations are described below and shown on Figure 4.12-1, *Approximate Noise Monitoring Locations*.

³ Monitoring of ambient noise was performed using Larson-Davis Model LxT and 820 sound level meters.

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Source: Google Earth, 2022. PlaceWorks.com, 2022.

- ST = Short-term Measurement Location
- LT = Long-term Measurement Location

Los Banos City Limits



Figure 4.12-1
Approximate Noise Monitoring Locations

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Long-Term Noise Monitoring Locations

- **Long-Term Location 1 (LT-1)** was on Overland Avenue west of Somerset Avenue. The measurement location was approximately 15 feet south of the nearest Overland Avenue eastbound travel lane centerline. An approximate 8-foot masonry wall is along the residential property line to the south. A 48-hour noise measurement was conducted, beginning at the 3:00 p.m. hour on Wednesday, January 19, 2022. The noise environment of this site is characterized primarily by local traffic and residential activity.
- **Long-Term Location 2 (LT-2)** was on Pacheco Boulevard west of 7th Street adjacent to the Westside Union Elementary School field. The measurement location was approximately 20 feet north of the nearest Pacheco Boulevard westbound travel lane centerline. A 48-hour noise measurement was conducted, beginning at the 3:00 p.m. hour on Wednesday, January 19, 2022. The noise environment of this site is characterized primarily by local traffic and school activity.
- **Long-Term Location 3 (LT-3)** was on Mercey Springs Road south of Canal Farm Lane. The measurement location was approximately 30 feet east of the nearest Mercey Springs Road northbound travel lane centerline. An approximate 10-foot wooden fence is along the residential property line to the east. A 48-hour noise measurement was conducted, beginning at the 4:00 p.m. hour on Wednesday, January 19, 2022. The noise environment of this site is characterized primarily by local traffic and residential activity.
- **Long-Term Location 4 (LT-4)** was in Cresthills Park off Pioneer Road west of Black Hills Avenue. The measurement location was approximately 40 feet north of the nearest Pioneer Road westbound travel lane centerline. A 48-hour noise measurement was conducted, beginning at the 4:00 p.m. hour on Wednesday, January 19, 2022. The noise environment of this site is characterized primarily by local traffic and park activity.

Short-Term Noise Monitoring Locations

- **Short-Term Location 1 (ST-1)** was on East B Street west of Las Palmas Street. The measurement location was approximately 15 feet north of the nearest East B Street westbound travel lane centerline. An approximate 6-foot masonry wall is along the residential property line to the north. A 15-minute noise measurement was conducted, beginning at 4:18 p.m. on Wednesday, January 19, 2022. The noise environment of this site is characterized primarily by local traffic. Secondary noise sources included birds.
- **Short-Term Location 2 (ST-2)** was on West Pacheco Boulevard west of Paradise Lane. The measurement location was approximately 15 feet south of the nearest West Pacheco Boulevard eastbound travel lane centerline. A 15-minute noise measurement was conducted, beginning at 4:46 p.m. on Wednesday, January 19, 2022. The noise environment of this site is characterized primarily by local traffic.
- **Short-Term Location 3 (ST-3)** was on Ward Road south of San Luis Street in front of the 509 Ward Road residence. The measurement location was approximately 45 feet west of the nearest Ward Road southbound travel lane centerline. A 15-minute noise measurement was conducted, beginning at 5:18 p.m. on Wednesday, January 19, 2022. The noise environment of this site is characterized primarily by local traffic.

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- **Short-Term Location 4 (ST-4)** was on East Pacheco Boulevard west of Miller Lane. The measurement location was approximately 20 feet north of the nearest East Pacheco Boulevard westbound travel lane centerline. A 15-minute noise measurement was conducted, beginning at 5:45 p.m. on Wednesday, January 19, 2022. The noise environment of this site is characterized primarily by local traffic.
- **Short-Term Location 5 (ST-5)** was in a vacant lot off Dock Avenue at the residential property line closest to the proposed Pioneer Road extension. A 10-minute noise measurement was conducted, beginning at 5:01 p.m. on Friday, January 21, 2022. The noise environment of this site is characterized primarily by distant traffic on Pacheco Boulevard. Birds, distant dogs barking, and low volume traffic on Dock Avenue also contributed to the ambient noise environment.
- **Short-Term Location 6 (ST-6)** was on Mercey Springs Road south of De Anza Way. The measurement location was approximately 20 feet east of the nearest Mercey Springs Road northbound travel lane centerline. An approximate 10-foot masonry wall is along the residential property line to the east. A 15-minute noise measurement was conducted, beginning at 6:13 p.m. on Wednesday, January 19, 2022. The noise environment of this site is characterized primarily by local traffic.
- **Short-Term Location 7 (ST-7)** was on Ward Road south of Pacheco Boulevard. The measurement location was approximately 15 feet west of the nearest Ward Road southbound travel lane centerline. A 10-minute noise measurement was conducted, beginning at 6:44 p.m. on Wednesday, January 19, 2022. The noise environment of this site is characterized primarily by low volume traffic on Ward Road, distant agricultural machinery, and dogs.
- **Short-Term Location 8 (ST-8)** was at the dead end of Place Road. A 12-minute noise measurement was conducted, beginning at 4:33 p.m. on Friday, January 21, 2022. The noise environment of this site is characterized primarily by low volume traffic on Place Road, distant traffic, and distant dogs barking.
- **Short-Term Location 9 (ST-9)** was at the residential property line with the California Dairies industrial plant. A 15-minute noise measurement was conducted, beginning at 3:38 p.m. on Friday, January 21, 2022. The noise environment of this site is characterized primarily by industrial plant noise from a chiller or air handling equipment. Noise from the plant was steady around 61 dBA. Occasionally, trucks on Pacheco Boulevard generated noise levels up to 67 dBA.

Ambient Noise Results, Long-Term Monitoring

During the ambient noise survey, the CNEL noise levels at monitoring locations ranged from 67 to 81 dBA CNEL. The long-term noise measurement results are summarized in Table 4.12-5, *Long-Term Noise Measurement Summary (dBA)*. A summary of the daily trend of long-term noise measurement results are shown in Appendix F, *Noise Data*, of this Draft EIR.

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TABLE 4.12-5 LONG-TERM NOISE MEASUREMENT SUMMARY (dBA)

Monitoring Location	Description	CNEL	Lowest L_{eq} , 1-Hour	Highest L_{eq} , 1-Hour
LT-1	Overland Avenue	67 – 68	51	71
LT-2	SR-152/Pacheco Boulevard	80 – 81	69	81
LT-3	Mercey Springs Road	78	65	78
LT-4	Cresthills Park/Pioneer Road	72 – 73	53	78

Notes: LT= long term
Source: PlaceWorks, 2022.

Short-Term Noise Monitoring Results

The short-term noise measurement results are summarized in Table 4.12-6, *Short-Term Noise Measurement Summary (dBA)*.

TABLE 4.12-6 SHORT-TERM NOISE MEASUREMENT SUMMARY (dBA)

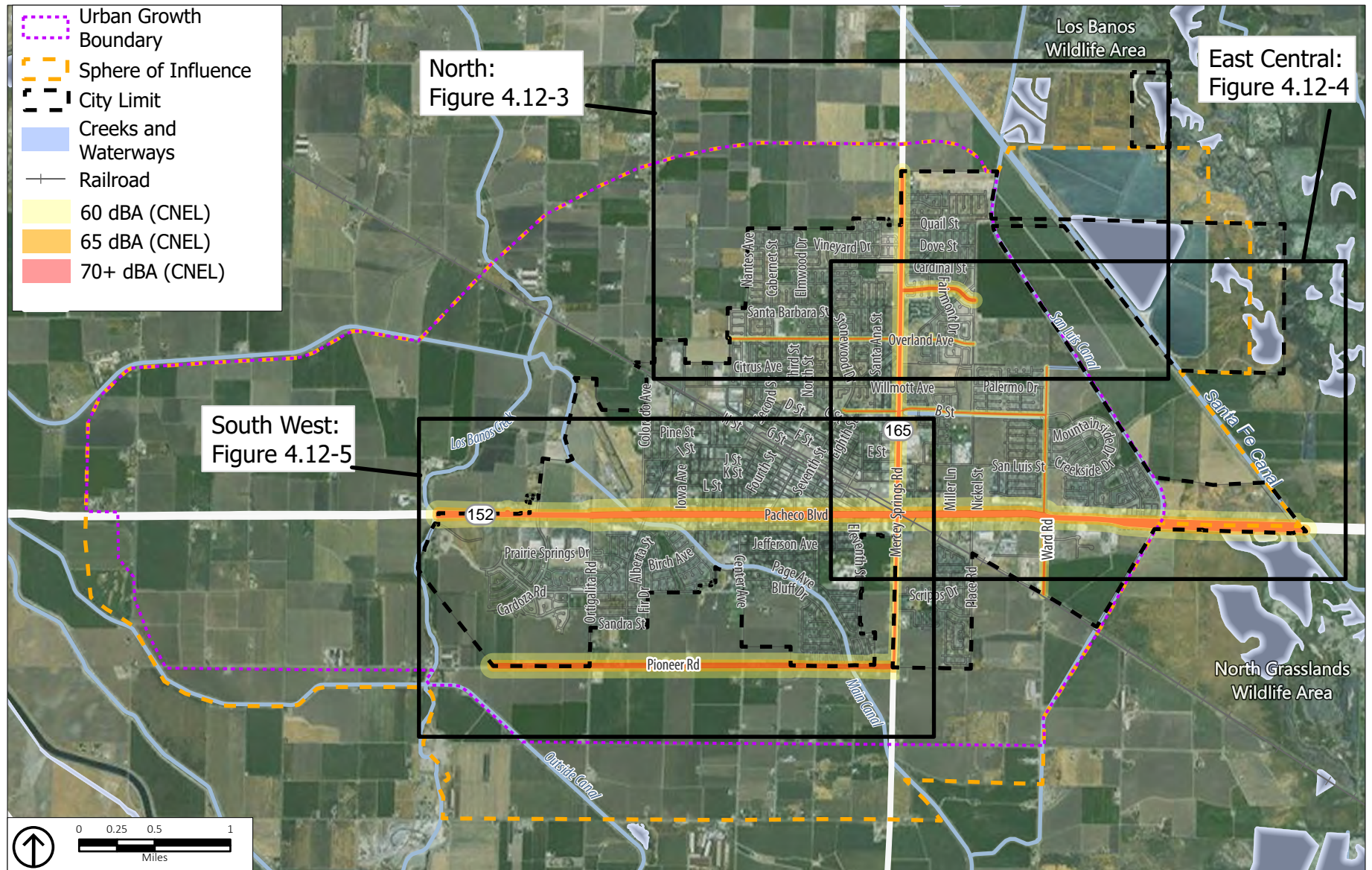
Monitoring Location	Description	Noise Level, dBA		
		L_{min}	L_{eq}	L_{max}
ST-1	B Street, 4:18 pm, 1/19/2022	41.3	69.3	83.0
ST-2	Pacheco Boulevard (west of Paradise Lane), 4:46 pm, 1/19/2022	55.4	77.4	85.2
ST-3	Ward Road (south of San Luis Street), 5:18 pm, 1/19/2022	42.4	69.4	93.1
ST-4	Pacheco Boulevard (west of Miller Lane), 5:45 pm, 1/19/2022	51.4	75.0	89.5
ST-5	Dock Avenue, 5:01 pm, 1/21/2022	46.6	51.4	58.9
ST-6	Mercey Springs Road, 6:13 pm, 1/19/2022	50.6	74.2	84.6
ST-7	Ward Road (south of Pacheco Blvd.), 6:44 pm, 1/19/2022	38.2	58.9	77.1
ST-8	Place Road, 4:33 pm, 1/21/2022	40.5	47.4	66.4
ST-9	California Dairies industrial plant, 3:38 pm, 1/21/2022	60.6	62.2	66.9

Notes: ST = short term
Source: PlaceWorks, 2022.

Traffic Noise

Traffic noise levels were estimated using the *FHWA Highway Traffic Noise Prediction Model* and traffic data provided by Kittelson and Associates, Inc. (see Appendix F, *Noise Data*, of this Draft EIR). The FHWA model predicts noise levels through a series of adjustments to a reference sound level. These adjustments account for distances from the roadway, traffic volumes, vehicle speeds, car/truck mix, number of lanes, and road width. Existing (2021) roadway and highway noise contours of 60, 65, and 70 dBA CNEL noise contours are shown on Figures 4.12-2 through 4.12-5.

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Source: ESRI, 2021; Merced County, 2019; Kittelson & Associates, 2022; PlaceWorks, 2022.

Figure 4.12-2
Existing Noise Contours



Figure 4.12-3
Existing Noise Contours - North

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Source: ESRI, 2021; Merced County, 2019; Kittelson & Associates, 2022; PlaceWorks, 2022.

Figure 4.12-4
Existing Noise Contours - East Central

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Source: ESRI, 2021; Merced County, 2019; Kittelson & Associates, 2022; PlaceWorks, 2022.

Figure 4.12-5
Existing Noise Contours - South West

Aircraft Noise

The Los Banos Municipal Airport is within the city limits of Los Banos in the western part of the city. The airport is west of downtown and directly adjacent to the Central California Irrigation District Main Canal; it is between SR-152 and Ingomar Grade Road. It covers 125 acres and contains one paved runway 3,800 feet long. The airport is owned by the City of Los Banos and operated through the Public Works Department.

The airport was developed in 1940 and has historically been used for general aviation, which includes all aviation activities other than commercial passenger flights, commuter/air taxi, and military uses. General aviation activity typically includes single-engine and small twin-engine aircraft holding six or fewer people. The Los Banos Municipal Airport is the third largest and third most active airport in the county. The FAA reported that as of 2017, an average of 21 planes were based at the Los Banos Municipal Airport over the past 5 years, and the airport saw a total of 16,000 “aviation activities,” which could include local users, travelers passing through, emergency operations, etc. As with the current General Plan, the City is considering the relocation of the airport to a site outside the EIR Study Area to reduce potential conflicts, including noise conflicts, with surrounding land uses. There are no private airstrips in the vicinity of the locations where future development could occur as a result of implementation of the proposed project.

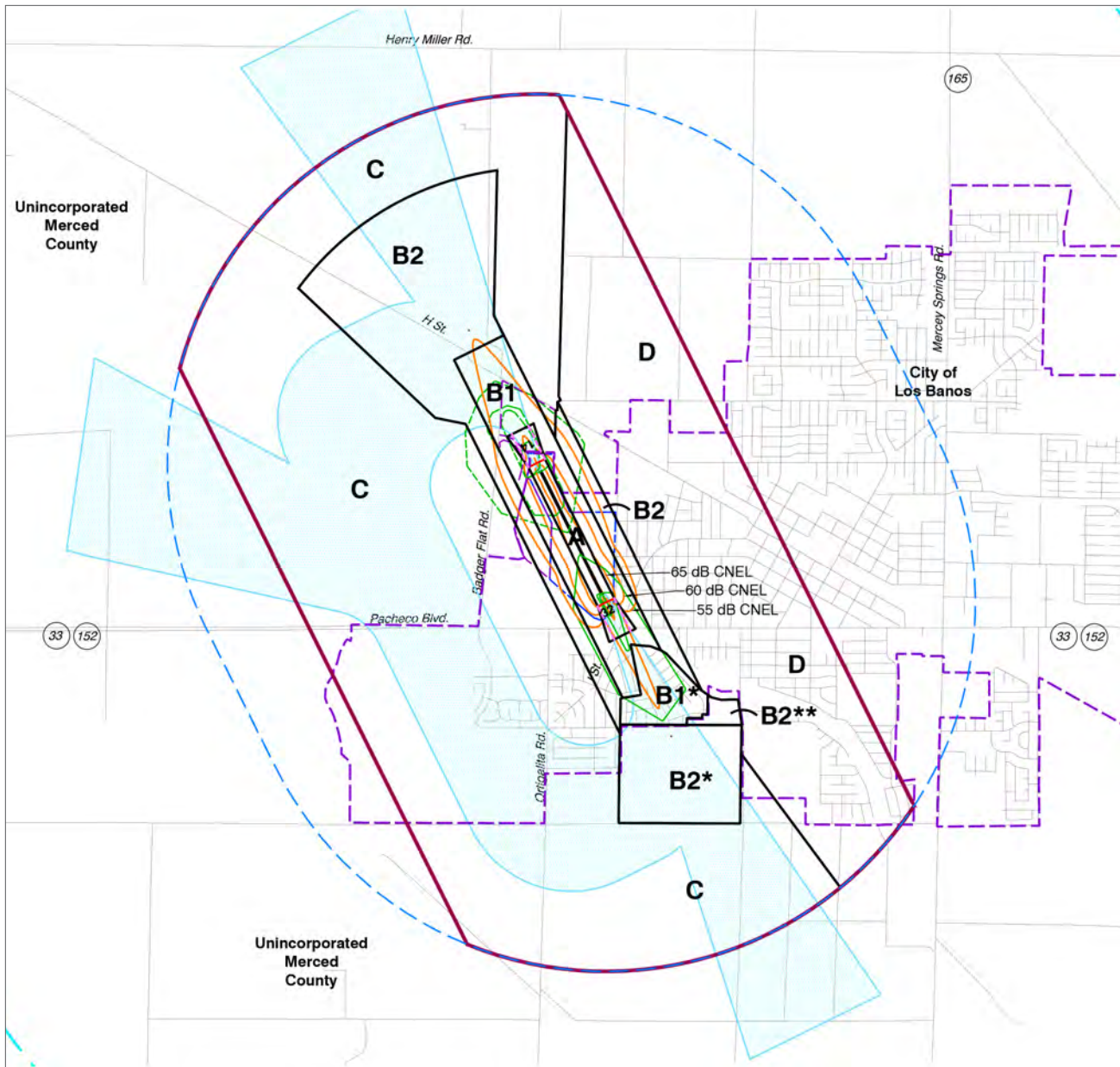
Nearby noise sensitive receptors include residential uses to the east, southwest, and south of the airport. Figure 4.12-6, *Los Banos Municipal Airport Noise Contours*, shows the 60 and 55 dBA CNEL airport noise contours extend to the residential uses to the east and the 55 dBA CNEL noise contour extend to residential uses to the south.

Railroad Noise

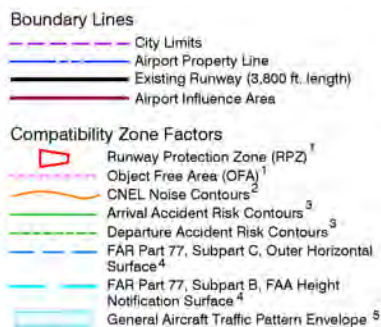
There are no active railway lines within the EIR Study Area. Los Banos was served by the West Side Line of the Southern Pacific Railway from the 1890s to the 1990s, including both freight and passenger rail service. However, Southern Pacific abandoned the section of track from downtown Los Banos southeast to Oxalis in 1993.⁴ The tracks have been disabled and converted to the Los Banos Rail Trail. Northwest of downtown, a freight rail line operated by California Northern Railroad connects Los Banos’ industrial areas north to the City of Tracy. There is no passenger rail service along this line.

⁴ WikiPedia, “San Joaquin Valley Railroad,” https://en.wikipedia.org/wiki/San_Joaquin_Valley_Railroad, accessed February 28, 2022.

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Source: Merced County Airport Land Use Commission, 2012.



Compatibility Zone Delineation

- Compatibility zones represent a composite of noise, overflight, safety and airspace impacts. See Chapter 3, Table 3A, Compatibility Zone Factors, for general concepts used to develop zone boundaries.
- Airport-specific considerations include: lack of traffic pattern east of airfield, and existing urban development east and south of airport.

Notes

- Source: Los Banos Municipal Airport Layout Plan (October 2010).
- Source: Los Banos Municipal Airport Master Plan (1997). Noise contours reflect a forecast activity level of 21,200 annual operations by 2035.

3. Source: California Airport Land Use Planning Handbook published by California Department of Transportation, Division of Aeronautics (October 2011). The accident distribution contours depict where an aircraft accident is most likely to happen when one occurs. The contours represent highest concentration of accident points in 20% increments.

4. Source: Federal Aviation Regulation (FAR) Part 77, Safe, Efficient Use, and Preservation of Navigable Airspace (January 2011). See Map LOS 2 for complete FAA Height Notification Surface.

5. Source: Mead & Hunt, Inc. based on input from city staff.

Figure 4.12-6

Los Banos Municipal Airport Noise Contours

Stationary Noise

Stationary sources of noises may occur from all types of land uses. Residential uses would generate noise from landscaping, maintenance activities, and air conditioning systems. Commercial uses would generate noise from heating, ventilation, and air conditioning (HVAC) systems; loading docks; and other sources. Industrial uses may generate noise from HVAC systems, loading docks, and possibly machinery. Noise generated by residential or commercial uses is generally short and intermittent. Industrial uses may generate noise on a more continual basis. Nightclubs, outdoor dining areas, gas stations, car washes, fire stations, drive-throughs, swimming pool pumps, school playgrounds, athletic and music events, and public parks are other common noise sources. One major source of stationary noise is the California Dairies industrial plant on Pacheco Boulevard. As documented during afternoon noise monitoring at ST-9, noise from the plant was steady at approximately 61 dBA.

Vibration

Existing sources of operational vibration in the EIR Study Area include vehicle traffic on roadways. Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses and notes that “heavy trucks, and quite frequently buses, generate the highest earthborn vibrations of normal traffic.” Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that “vibrations measured on freeway shoulders (five meters from the centerline of the nearest lane) have never exceeded 0.08 inches per second (in/sec), with the worst combinations of heavy trucks and poor roadway conditions (while such trucks were moving at freeway speeds). This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings).”⁵

4.12.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in a significant noise impact if it would:

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.
2. Result in generation of excessive groundborne vibration or groundborne noise levels.
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 two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.
4. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to noise and vibration.

⁵ Caltrans, 2013, *Transportation and Construction Vibration Guidance Manual*.

NOISE

4.12.2.1 CONSTRUCTION NOISE

The City does not have established noise thresholds for construction noise. Therefore, the Federal Transit Administration (FTA) construction noise criterion of 80 dBA $L_{eq(8hr)}$ will be used in this analysis to assess construction noise impacts at sensitive receptors. Since this is a programmatic EIR, project-level analysis of construction noise would be speculative and is therefore not presented in this analysis. Potential future impacts from construction noise are addressed qualitatively.

4.12.2.2 STATIONARY NOISE THRESHOLDS

The LBMC provides noise standards for stationary sources that would be analyzed at the project level in Article 27, *Noise Control*, and summarized in Table 4.12-4, *Exterior Noise Standards (dBA)*, presented in Section 4.12.1.4, *Regulatory Framework*.

4.12.2.3 VIBRATION LIMITS

The City does not have specific limits or thresholds for vibration-induced architectural damage related to construction activities. The FTA provides criteria for acceptable levels of groundborne vibration for various types of buildings. These criteria are used for this analysis and shown in Table 4.12-7, *Building Architectural Vibration Damage Limits*. The Category III, non-engineered timber and masonry buildings, threshold of 0.2 in/sec PPV would apply to typical residential structures.

TABLE 4.12-7 BUILDING ARCHITECTURAL VIBRATION DAMAGE LIMITS

Building Category	PPV (in/sec)
Reinforced concrete, steel, or timber, (no plaster)	0.5
Engineered Concrete and masonry (no plaster)	0.3
Non-engineered timber and masonry buildings	0.2
Buildings extremely susceptible to vibration damage	0.12

Note: PPV = peak particle velocity; in/sec = inches per second

Source: Federal Transit Administration (FTA) 2018. *Transit Noise and Vibration Impact Assessment Manual*.

4.12.2.4 TRAFFIC NOISE

A project will normally have a significant effect on the environment related to noise if it will substantially increase the ambient noise levels in the areas around the project. Most people can detect changes in sound levels of approximately 3 dBA under normal, quiet conditions, and changes of 1 to 3 dBA are detectable under quiet, controlled conditions. Changes of less than 1 dBA are usually indiscernible. A change of 5 dBA is readily discernible to most people in an exterior environment. Based on the City of Los Banos proposed General Plan 2042 Action S-A8.1, the following thresholds of significance are used to assess traffic noise impacts at sensitive receptor locations:

- Greater than 1.5 dBA increase for ambient noise environments of 65 dBA CNEL and higher;
- Greater than 3 dBA increase for ambient noise environments of 60 to 64 dBA CNEL; and
- Greater than 5 dBA increase for ambient noise environments of less than 60 dBA CNEL.

4.12.3 IMPACT DISCUSSION

NOI-1	Implementation of the proposed project would result in generation of substantial temporary and permanent increases 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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Construction Noise

Potential future development could result in two types of temporary noise impacts during construction: (1) the transport of workers and movement of materials to and from the site could incrementally increase noise levels along local access roads; and (2) noise would be generated from activities related to demolition, site preparation, grading, and/or physical construction. Construction is performed in distinct steps, each of which has its own mix of equipment, and consequently, its own noise characteristics. Table 4.12-8, *Construction Equipment Noise Emission Levels*, lists typical construction equipment noise levels recommended for noise-impact assessments, based on a distance of 50 feet between the equipment and noise receptor.

TABLE 4.12-8 CONSTRUCTION EQUIPMENT NOISE EMISSION LEVELS

Construction Equipment	Typical Max Noise Level (dBA L _{max}) ^a	Construction Equipment	Typical Max Noise Level (dBA L _{max}) ^a
Air Compressor	81	Pile-Driver (Impact)	101
Backhoe	80	Pile-Driver (Sonic)	96
Ballast Equalizer	82	Pneumatic Tool	85
Ballast Tamper	83	Pump	76
Compactor	82	Rail Saw	90
Concrete Mixer	85	Rock Drill	98
Concrete Pump	71	Roller	74
Concrete Vibrator	76	Saw	76
Crane, Derrick	88	Scarifier	83
Crane, Mobile	83	Scraper	89
Dozer	85	Shovel	82
Generator	81	Spike Driver	77
Grader	85	Tie Cutter	84
Impact Wrench	85	Tie Handler	80
Jack Hammer	88	Tie Inserter	85
Loader	85	Truck	88
Paver	89		

Notes:

a. A-Weighted Decibel (dBA), is the overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear and L_{max} is the maximum noise level during a measurement period. This noise level is measured 50 feet from the source.

Source: Federal Transit Administration (FTA) 2018. *Transit Noise and Vibration Impact Assessment Manual*.

NOISE

As shown, construction equipment generates high levels of noise, with maximums ranging from 71 dBA to 101 dBA. Construction of individual developments associated with implementation of the proposed project would temporarily increase the ambient noise environment and would have the potential to affect noise-sensitive receptors in the vicinity of potential future development projects.

Implementation of the proposed project anticipates an increase in development intensity to accommodate new population and employment growth. Construction noise levels are highly variable and dependent upon the specific locations, site plans, and construction details of individual projects. Significant noise impacts may occur from operation of heavy earth-moving equipment and truck haul operations associated with construction of individual development projects, particularly if construction techniques such as impact or vibratory pile driving are proposed. The time of day that construction activity is conducted would also determine the significance of each project, particularly during the more sensitive nighttime hours. However, construction would be localized and would occur intermittently for varying periods of time.

In most cases, construction of individual developments associated with implementation of the proposed project would temporarily increase the ambient noise environment in the vicinity of each individual project, potentially affecting existing and future nearby sensitive uses. Some common construction best management practices include requiring projects to:

- Use the best-available noise control techniques (e.g., improved mufflers, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) wherever feasible on equipment and trucks used for project construction shall.
- Require the contractor to use impact tools (e.g., jack hammers and hoe rams) that are hydraulically or electrically powered wherever possible. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools.
- Locate stationary equipment such as generators and air compressors as far as feasible from nearby noise-sensitive uses.
- Locate stockpiling as far as feasible from nearby noise-sensitive receptors.
- Limit construction traffic shall be limited—to the extent feasible—to haul routes approved in advance of issuing building permits by the City.
- Require the telephone numbers of the authorized representatives for the City and the contractor that are assigned to respond in the event of a noise or vibration complaint to be displayed on construction signs posted at the construction site. If the authorized contractor's representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City.
- Post signs at the job site entrance(s), within the on-site construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment shall be turned off if not in use for more than 5 minutes.

NOISE

- Require the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only, to the extent feasible. The construction manager shall use smart back-up alarms, which automatically adjust the alarm level based on the background noise level or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws.
- Erect temporary noise barriers (at least as high as the exhaust of equipment and breaking line-of-sight between noise sources and sensitive receptors), as necessary and feasible, to maintain construction noise levels at or below the performance standard of 80 dBA $L_{eq(8hr)}$ and/or when the anticipated construction duration is greater than is typical (two years or greater). Barriers shall be constructed with a solid material that has a density of at least 4 pounds per square foot with no gaps from the ground to the top of the barrier.

The General Plan 2042 Safety and Noise (S) Element contains a goal, policies, and an action that require local planning and development decisions to consider noise-related impacts, including during construction. The following General Plan 2042 goal, policies, and action would minimize potential adverse construction noise-related impacts:

- **Goal S-8.** Strive to achieve an acceptable noise environment for the present and future residents of Los Banos.
 - **Policy S-P8.5.** Protect especially sensitive uses, including schools, hospitals, and senior care facilities, from excessive noise.
 - **Policy S-P8.6.** Require the use of Best Available Control Technology (BACT) to minimize noise from all stationary sources as well as mobile/temporary sources such as operation of construction equipment.
 - **Action S-A8.3.** The City shall establish and adopt a list of construction best management practices to be implemented during the construction phase and incorporated into Los Banos Municipal Code Article 27, *Noise Control*, to protect noise sensitive receptors (e.g., residences, schools, and hospitals) from the temporary effects of construction noise. The City of Los Banos Building Department shall verify that construction best management practices, as appropriate, are on the demolition, grading, and construction plans prior to issuance of demolition, grading and/or building permits.

As previously stated, in most cases, construction of individual developments associated with implementation of the proposed General Plan 2042 would temporarily increase the ambient noise environment in the vicinity of each individual project, potentially affecting existing and future nearby sensitive uses. The implementation of construction best management practices developed as part of General Plan Action S-A8.3 that are applied throughout the entire active construction period would help to ensure that construction noise is minimized to the extent feasible. However, because construction activities associated with any individual development may occur near noise-sensitive receptors and because, depending on the project type, equipment list, time of day, phasing, and overall construction durations, noise disturbances may occur for prolonged periods of time or during the more sensitive nighttime hours, construction noise impacts associated with implementation of the proposed project are considered *potentially significant*.

NOISE

Impact NOI-1a: Construction activities associated with potential future development projects from implementation of the General Plan 2042 could expose noise-sensitive receptors in close proximity to a construction site to construction noise that exceeds 80 a-weighted decibel (dBA) equivalent continuous noise level over an 8-hour period ($L_{eq(8hr)}$).

Significance without Mitigation: Significant and unavoidable. Implementation of the General Plan 2042 Action S-A8.3 would ensure that construction noise impacts are reduced to the degree feasible. Because construction activities associated with any individual development may occur near noise-sensitive receptors and because, depending on the project type, equipment list, time of day, phasing and overall construction durations, noise disturbances may occur for prolonged periods of time, during the more sensitive nighttime hours, or may exceed 80 dBA $L_{eq(8hr)}$ even with project-level mitigation, construction noise impacts associated with implementation of the proposed project are considered *significant and unavoidable*. The identification of this program-level impact does not preclude the finding of less-than-significant impacts for subsequent projects analyzed at the project level that do not exceed the noise thresholds.

Operational Noise

Traffic Noise

Future development from implementation of the proposed project would cause increases in traffic along local roadways. Traffic noise levels were estimated using the FHWA Highway Traffic Noise Prediction Model. Traffic volumes for existing and 2042 conditions were obtained from Kittelson and Associates, Inc. (see Appendix F, *Noise Data*, of this Draft EIR). The FHWA model predicts noise levels through a series of adjustments to a reference sound level. These adjustments account for distances from the roadway, traffic volumes, vehicle speeds, car/truck mix, number of lanes, and road width.

Table 4.12-9, *Traffic Noise Increases in the EIR Study Area*, presents the noise level increases on roadways over existing conditions at 50 feet from the centerline of the nearest travel lane. Figures 4.12-7 through 4.12-10 show the 60, 65, and 70 dBA CNEL noise contours from roadways and highways.

NOISE

TABLE 4.12-9 TRAFFIC NOISE INCREASES IN THE EIR STUDY AREA

Roadway Segment	Existing CNEL (dBA) at 50 Feet	2042 General Plan CNEL (dBA) at 50 Feet	Increase	Noise Increase Threshold Limit	Significant?
SR 152 - Badger Flat Road to Ortigalita Rd	74.2	76.8	2.6	1.5	Yes
SR 152 - Ortigalita Road to 7th Street	75.7	77.1	1.4	1.5	No
SR 152 - 7th Street to SR 165	76.0	77.4	1.4	1.5	No
SR 152 - SR 165 to Ward Road	76.0	77.2	1.2	1.5	No
SR 152 - Ward Road to East City Limit	74.0	75.4	1.5	1.5	No
SR 165 - Northern City Limit to Overland Av	71.3	72.6	1.3	1.5	No
SR 165 - Overland Avenue to B Street	71.0	71.6	0.7	1.5	No
SR 165 - B Street to SR 152	71.7	72.5	0.8	1.5	No
SR 165- SR 152 to Pioneer Road	69.2	69.7	0.5	1.5	No
Overland Avenue - SR 165 to Place Road	64.5	65.4	0.8	1.5	No
Ward Road - B Street to SR 152	64.8	65.3	0.5	1.5	No
Ward Road - South of SR 152	68.0	69.0	1.0	1.5	No
B Street - SR 165 to Place Road	64.7	64.7	0.0	1.5	No
B Street - Place Road to Ward Road	66.0	66.0	0.0	1.5	No
Pioneer Road - West of SR 165	67.7	68.3	0.6	1.5	No

Note: **Bold** and Shaded = Significant increase.

Source: Based on FHWA's traffic noise prediction model methodology using roadway volumes, vehicle mix, time of day splits, and number of lanes provided by Kittelson and Associates, Inc., 2022 (see Appendix F, *Noise Data*, of this Draft EIR).

As shown in Table 4.12-9, traffic noise increases along all roadway study segments would not exceed the City's standards with the exception of the segment along SR-152 between Badger Flat Road and Ortigalita Road. This segment would exceed the City's 1.5 dBA increase threshold. In addition, the Pioneer Road extension and connection to Pacheco Boulevard would expose residences to traffic noise levels of 68 dBA CNEL at a distance of 50 feet where there is no existing road. As such, the impact at these two locations would be *potentially significant*.

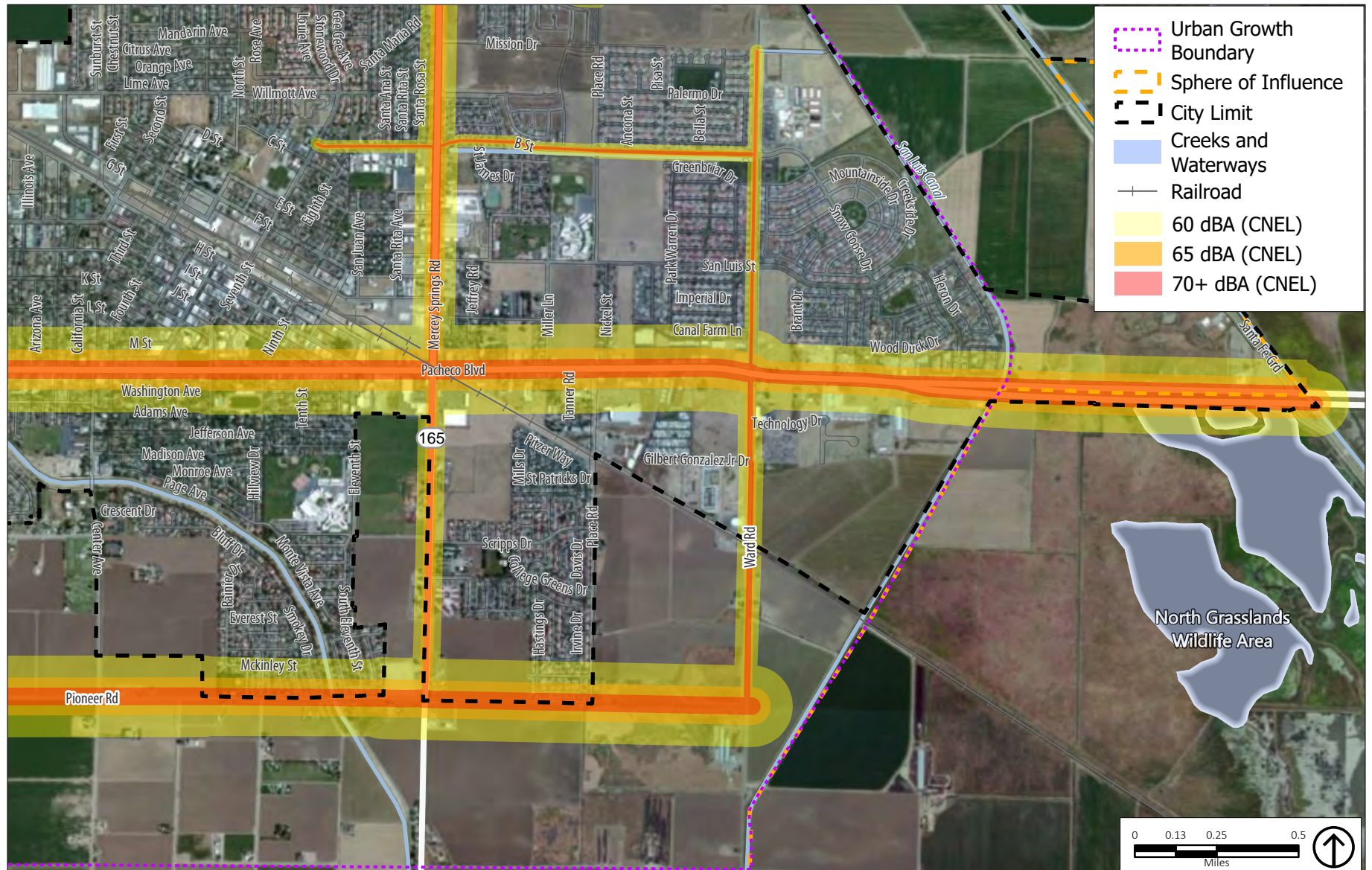


Figure 4.12-7
Future 2042 Noise Contours



Figure 4.12-8
Future 2042 Noise Contours - North

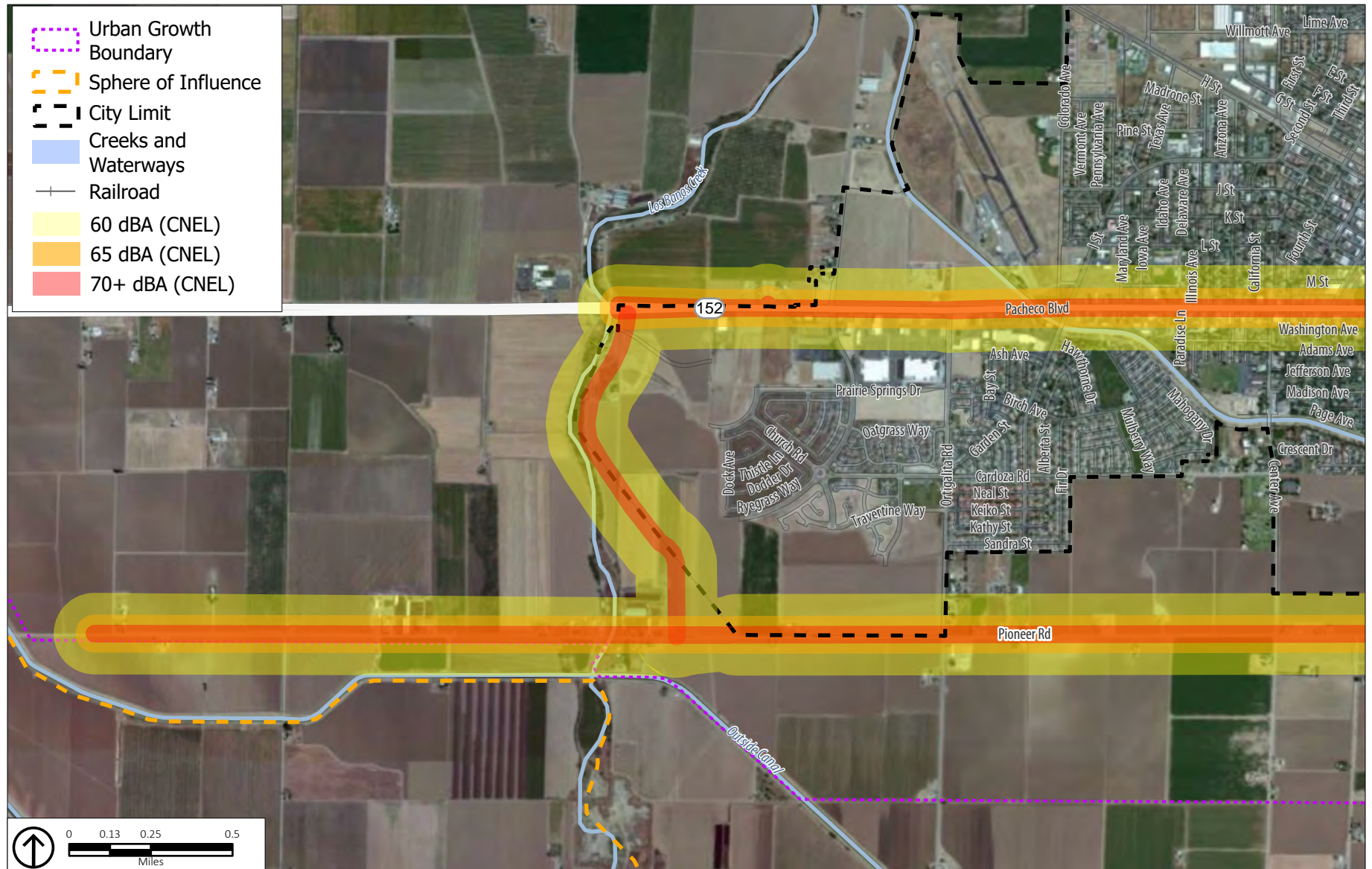
NOISE



Source: ESRI, 2021; Merced County, 2019; Kittelson & Associates, 2022; PlaceWorks, 2022.

Figure 4.12-9
Future 2042 Noise Contours - East Central

NOISE



Source: ESRI, 2021; Merced County, 2019; Kittelson & Associates, 2022; PlaceWorks, 2022.

Figure 4.12-10
Future 2042 Noise Contours - South West

NOISE

The General Plan 2042 Safety and Noise (S) Element contains a goal, policies, and an action that require local planning and development decisions to consider noise-related impacts from transportation. The following General Plan 2042 goal, policies, and action would minimize potential adverse traffic noise-related impacts.

- **Goal S-8.** Strive to achieve an acceptable noise environment for the present and future residents of Los Banos.
 - **Policy S-P8.3.** Promote the use of noise attenuation measures to improve the acoustic environment inside residences where existing single-family residential development is located on an arterial street.
 - **Policy S-P8.4.** Discourage sound walls, except along freeways, unless they are needed as a measure of last resort. In all other instances, permit sound walls only upon finding that alternative noise attenuation measures are not available. As an alternative to sound walls, use “quiet pavement,” such as rubberized asphalt or open-grade asphalt concrete overlays. Roadway noise reduction of up to 6-7 dBA compared to conventional asphalt overlay may be possible, but the effective lifespan of such pavement should be considered.
 - **Action S-A8.1.** Prohibit long-term noise increases above the following at existing sensitive receptor property lines (e.g., from traffic noise increases), or new uses that generate noise levels at a sensitive receptor property line:
 - Greater than 1.5 dBA CNEL increase for ambient noise environments of 65 dBA CNEL and higher;
 - Greater than 3 dBA CNEL increase for ambient noise environments of 60- 64 CNEL; and
 - Greater than 5 dBA CNEL increase for ambient noise environments of less than 60 dBA CNEL.

For projects that exceed these noise increases due to project-generated traffic noise, a “fair share” fund shall be considered where projects exceeding these increases pay into a fund for roadway improvements (e.g., repaving with “quiet pavement” to reduce traffic noise levels).

With implementation of proposed General Plan Action S-A8.1, the mandatory payment of “fair share” traffic impact fees as established by Action S-A8.1, would ensure that roadway improvements, such as repaving with “quiet pavement” to reduce traffic noise levels, would be funded and the improvements to the impacted roadways could be made where the City has jurisdiction to make such improvements, including the Pioneer Road extension and connection to Pacheco Boulevard where there is no existing road. Notable reductions in tire noise have been achieved via the implementation of special paving materials, such as rubberized asphalt or open-grade asphalt concrete overlays. For example, Caltrans conducted a study of pavement noise along I-80 in Davis, California, and found an average improvement of 6 to 7 dBA compared to conventional asphalt overlay with only minimal noise increases over a ten-year period. Traffic noise level increases of up to 2.6 dBA CNEL are estimated along SR-152 between Badger Flat Road and Ortigalita Road, and the Pioneer Road extension where there is currently no road.

Impact NOI-1b: Implementation of the General Plan 2042 traffic noise level increases of up to 2.6 a-weighted decibel (dBA) community noise equivalent level (CNEL) are estimated along State Route 152 between Badger Flat Road and Ortigalita Road which would exceed the City’s 1.5 dBA increase threshold.

Mitigation Measure NOI-1b: The City of Los Banos shall work with the California Department of Transportation (Caltrans) and request that Caltrans install “quiet pavement” materials to reduce traffic noise levels to below the City’s 1.5 dBA increase threshold along State Route 152 between Badger Flat Road and Ortigalita Road.

Significance without Mitigation: Significant and unavoidable. While implementation of the proposed General Plan 2042 Action S-A8.1 would ensure roadway improvements could be made to reduce traffic noise levels along the Pioneer Road extension that would meet the City’s noise and land use standards for Normally Acceptable (see Table 4.12-10, *Land Use Compatibility for Community Noise Environments*), the City does not have jurisdiction over SR-152. While traffic noise along this segment could result in a net decrease of traffic noise with the installation of “quiet pavement” materials and reduce noise impacts to below the City’s thresholds, because the impacted roadway segment on SR-152 is under the jurisdiction of Caltrans, it is not feasible for the City of Los Banos to implement any roadway improvements on the segment. Accordingly, the impact would be *significant and unavoidable*.

Stationary Source Noise

Stationary sources of noises may occur on all types of land uses. Residential uses would generate noise from landscaping, maintenance activities, and air conditioning systems. Commercial uses would generate noise from HVAC systems, loading docks, and other sources. Industrial uses may generate noise from HVAC systems, loading docks, and possibly machinery. Noise generated by residential or commercial uses is generally short and intermittent. Industrial uses may generate noise on a more continual basis. Nightclubs, outdoor dining areas, gas stations, car washes, fire stations, drive-throughs, swimming pool pumps, school playgrounds, athletic and music events, and public parks are other common noise sources. Stationary noise sources are controlled by LBMC Article 27, *Noise Control*. Furthermore, the proposed Safety and Noise (S) Element contains a goal and policies that require local planning and development decisions to consider noise-related impacts from stationary sources. The following General Plan 2042 goals and policies would minimize potential adverse noise-related impacts:

- **Goal S-8.** Strive to achieve an acceptable noise environment for the present and future residents of Los Banos.
 - **Policy S-P8.5.** Protect especially sensitive uses, including schools, hospitals, and senior care facilities, from excessive noise.
 - **Policy S-P8.6.** Require the use of Best Available Control Technology (BACT) to minimize noise from all stationary sources as well as mobile/temporary sources such as operation of construction equipment.

Land Use Compatibility

The General Plan 2042 Safety and Noise (S) Element aims to limit the exposure of the community to excessive noise levels by guiding decisions concerning land use in relation to substantial noise sources. The City’s land use compatibility standards provide urban planners with a tool to gauge the compatibility of land uses relative to existing and future noise levels and are shown in Table 4.12-10, *Land Use Compatibility for Community Noise Environments*.

NOISE

TABLE 4.12-10 LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS

Land Use Category	L _{dn} or CNEL, dBA						
	55	60	65	70	75	80	85
Residential-Low Density Single Family							
Residential – Multi Family							
Mixed-Use & High Density Residential							
Transient Lodging – Motels, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concerts, Halls, Amphitheaters							
Sports Area, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables							
Office Buildings, Businesses Commercial and Professional							
Industrial, Manufacturing Utilities, Agriculture							
Explanatory Notes							
	Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements.			Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does 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. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.			Clearly Unacceptable: New construction or development should not be undertaken.			

Source: City of Los Banos, 2007.

As a result of the Supreme Court decision regarding the assessment of the environment's impacts on projects (*California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal. 4th 369 (No. S 213478), December 17, 2015), it is generally no longer the purview of the CEQA process to evaluate the impact of existing environmental conditions on any given project. As a result, while the noise from existing sources is taken into account as part of the baseline, the direct effects of exterior noise from nearby noise sources relative to land use compatibility of a future project as a result of General Plan buildout is typically no longer a required topic for impact evaluation under CEQA. Generally, no determination of significance is required with the exception of certain school projects, projects affected by airport noise, and projects that would exacerbate existing conditions (i.e., projects that would have a significant operational impact).

The General Plan 2042 Safety and Noise (S) Element contains a goal and policies that require local planning and development decisions to consider noise and land use compatibility. The following General Plan 2042 goal and policies would minimize potential adverse noise-related impacts.

- **Goal S-8.** Strive to achieve an acceptable noise environment for the present and future residents of Los Banos.
 - **Policy S-P8.1.** Use the community noise level exposure standards, shown in Figure 7-10 [shown as Table 4.12-10, *Land Use Compatibility for Community Noise Environments*, of this Draft EIR] review criteria for new land uses.
 - **Policy S-P8.2.** Require a noise study and mitigation measures for all projects that have noise exposure greater than “normally acceptable” levels based on Table 7-3 [shown as Table 4.12-1, *Typical Noise Levels*, of this Draft EIR]. Require that new multifamily and single-family housing projects, hotels, and motels exposed to a Community Noise Equivalent Level (CNEL) of 60 dB or greater have a detailed acoustical analysis describing how the project will provide an interior CNEL of 45 dB or less, pursuant to Title 24, Part 2, of the California Code of Regulations. These measures may include, but are not limited to, the following actions:
 - Screen and control noise sources, such as parking and loading facilities, outdoor activities, and mechanical equipment;
 - Increase setbacks for noise sources from adjacent dwellings;
 - Install fences, walls, and landscaping that serve as noise buffers;
 - Use forced-air mechanical ventilation and soundproofing materials and double-glazed windows, or a combination thereof; and
 - Control hours of operation, including deliveries and trash pickup, to minimize noise impacts.

As required by General Plan 2042 Policy S-P8.1, the noise and land use compatibility standards would be applied in land use decisions, including maintaining the maximum noise standards for outdoor and common use areas, as specified in General Plan 2042 Policy S-P8.2. At the discretion of the Los Banos Building Department, requirements may include, but not necessarily be limited to, acoustical studies that show noise reduction features, acoustical design in new construction, and other methods that provide compliance with the CBC (adopted in LBMC Section 8-1.01) and City provisions for acceptable indoor and outdoor noise levels.

Significance without Mitigation: Less than significant.

NOISE

NOI-2 Implementation of the proposed project would result in generation of excessive groundborne vibration or groundborne noise levels.

Construction Vibration

Construction of future projects within the EIR Study Area could generate varying degrees of ground vibration, depending on the construction procedures and equipment. Operation of construction equipment generates vibration that spreads through the ground and diminishes with distance from the source. The effect on buildings in the vicinity of a construction site varies depending on soil type, ground strata, and the type of construction used for sensitive buildings in close proximity of the construction site. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches the levels that can damage structures, but can achieve the audible and perceptible ranges in buildings close to the construction site. Table 4.12-11, *Vibration Levels for Construction Equipment*, lists typical vibration levels for construction equipment in terms of Peak Particle Velocity (PPV), which is the peak rate of speed at which soil particles move due to ground vibration. PPV is measured in inches per second or in/sec.

TABLE 4.12-11 VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	Approximate PPV Vibration Level at 25 Feet (inches per second)
Pile Driver, Impact (Upper Range)	1.518
Pile Driver, Impact (Typical)	0.644
Pile Driver, Sonic (Upper Range)	0.734
Pile Driver, Sonic (Typical)	0.170
Vibratory Roller	0.210
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer	0.003

Notes: Peak Particle Velocity (PPV) is the peak rate of speed at which soil particles move (e.g., inches per second or in/sec) due to ground vibration.
Source: Federal Transit Administration, 2018.

As shown in Table 4.12-11, vibration generated by construction equipment has the potential to be substantial, since it has the potential to exceed the FTA criteria for architectural damage (e.g., 0.12 in/sec PPV for fragile or historical resources, 0.2 in/sec PPV for non-engineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). Construction details and equipment for future project-level developments under the General Plan 2042 are not known at this time but may cause vibration impacts. As such, this would be a *potentially significant* impact.

Impact NOI-2a: Construction activities associated with potential future development projects from implementation of the General Plan 2042 could generate excessive short-term vibration levels during project construction resulting in human annoyance or building damage.

Mitigation Measure NOI-2a: Prior to issuance of a building permit for a project requiring pile driving during construction that is within 135 feet of fragile structures such as older or historical resources, 100 feet of non-engineered timber and masonry buildings (e.g., most residential buildings), or within 75 feet of engineered concrete and masonry (no plaster); or a vibratory roller within 25 feet of any structure, the project applicant shall prepare a noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these activities. This noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed Federal Transit Administration (FTA) architectural damage thresholds (e.g., 0.12 inches per second (in/sec) peak particle velocity (PPV) for fragile or historical resources, 0.2 in/sec PPV for non-engineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). If vibration levels would exceed these thresholds, alternative uses such as drilling piles as opposed to pile driving and static rollers as opposed to vibratory rollers shall be used. If necessary, construction vibration monitoring shall be conducted to ensure vibration thresholds are not exceeded.

Significance with Mitigation: Less than significant.

Operational Vibration

Commercial and industrial operations in the EIR Study Area would generate varying degrees of ground vibration, depending on the operational procedures and equipment. Such equipment-generated vibrations would spread through the ground and diminish with distance from the source. The effect on buildings in the vicinity of the vibration source varies depending on soil type, ground strata, and receptor-building construction. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels.

As described in the discussion about construction vibration impacts, specific project-level information is not available at this time, so it is not possible to quantify future vibration levels at vibration-sensitive receptors that may be in close proximity to existing and future vibration sources. Therefore, sensitive uses in the EIR Study Area could potentially be exposed to excessive levels of vibration from commercial or industrial operations, and operations-related vibration impacts associated with implementation of the proposed project are considered *potentially significant*.

Impact NOI-2b: The operation of future projects with implementation of the General Plan 2042 could generate excessive long-term vibration levels.

Mitigation Measure NOI-2b: During the project-level process for industrial developments or other projects that could generate substantial vibration levels near sensitive uses, a noise and vibration analysis shall be conducted to assess and mitigate potential noise and vibration impacts related to the operations of that individual development. This noise and vibration analysis shall be conducted by a

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qualified and experienced acoustical consultant or engineer and shall follow the latest California Environmental Quality Act guidelines, practices, and precedents.

Significance with Mitigation: Less than significant.

NOI-3	Implementation of the proposed project would locate development 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, but would not expose people residing or working in the project area to excessive noise levels.
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As discussed in Section 4.12.1.5, *Existing Conditions*, Los Banos Municipal Airport is a public airport within the city limits of Los Banos in the western part of the city. Furthermore, there are no private airstrips in the vicinity of the locations where future development could occur as a result of implementation of the proposed project.

As shown on Figure 4.12-6, *Los Banos Municipal Airport Noise Contours*, the 60 and 55 dBA CNEL airport noise contours extend to the residential uses to the east and the 55 dBA CNEL noise contour extend to residential uses to the south. The 65 dBA CNEL noise contours do not extend beyond the airport runway. Within the 55 and 60 dBA CNEL noise contours, residential development is considered Normally Acceptable (see Table 4.12-10, *Land Use Compatibility for Community Noise Environments*).

The General Plan 2042 Safety and Noise (S) Element contains a goal and action that would require local planning and development decisions to consider noise-related impacts from Los Banos Municipal Airport. The following General Plan 2042 goal and action would minimize potential adverse airport noise-related impacts.

- **Goal S-8.** Strive to achieve an acceptable noise environment for the present and future residents of Los Banos.
 - **Action S-A8.2.** Work with the Los Banos Airport to minimize noise impacts of flight operations on existing noise-sensitive development.

Because the proposed General Plan 2042 would not cause a direct increase in flights and all residences are outside of the 65 dBA CNEL noise contours, impacts from future potential projects in the EIR Study Area would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

NOI-4	Implementation of the proposed project would, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to noise and vibration.
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The analysis of the proposed project, discussed above, addresses cumulative impacts with regard to noise, groundborne noise, and vibration. Although multiple simultaneous nearby noise sources may, in

combination, result in higher overall noise levels, this effect is captured and accounted for by the ambient noise level metrics that form the basis of the thresholds of significance for noise analysis. Any measurement of sound or ambient noise, whether for the purpose of evaluating land use compatibility, establishing compliance with exterior and interior noise standards, or determining point-source violations of a noise ordinance, necessarily will incorporate noise from all other nearby perceptible sources.

Additionally, although noise attenuation is influenced by a variety of topographical, meteorological, and other factors, noise levels decrease rapidly with distance, and vibration impacts decrease even more rapidly. Therefore, site-level cumulative noise or vibration impacts across city boundaries occur only infrequently. The City of Los Banos shares borders with other communities, which makes cross-border cumulative noise and vibration impacts possible. Nevertheless, given the proposed Safety and Noise Element policies and LBMC requirements discussed above, it is unlikely that stationary source noise would, in combination with noise sources from adjacent communities, result in cumulative noise impacts. Additionally, because any noise measurements taken in conjunction with Safety and Noise Element policies or LBMC requirements would necessarily account for noises received from outside the boundaries of the City of Los Banos, the ongoing implementation of these policies and regulations under the proposed project would serve to prevent site-based cumulative noise impacts.

If the construction of potential future projects that implement the proposed General Plan 2042 were to overlap with cumulative projects in the vicinity, construction noise could combine to result in significant cumulative impacts. The specific vicinity impacted by cumulative construction would likely shift as projects are completed and new projects begin. Since specific construction details, such as phasing schedules, are not known at this time for cumulative projects under the proposed General Plan 2042, cumulative construction noise, like Impact NOI-1a, may result in *significant* temporary noise impacts.

Impact NOI-4a: The General Plan 2042, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to construction noise.

Significance without Mitigation: Significant and unavoidable. As described in impact discussion NOI-1, because construction activities associated with any individual development may occur near noise-sensitive receptors and because, depending on the project type, equipment list, time of day, phasing and overall construction durations, noise disturbances may occur for prolonged periods of time, during the more sensitive nighttime hours, or may exceed 80 dBA $L_{eq(8hr)}$ even with project-level mitigation, cumulative construction noise impacts associated with implementation of the proposed General Plan 2042 are considered *significant and unavoidable* at the program level.

The noise contours and traffic-related noise levels developed for the proposed project include and account for regional travel patterns as they affect traffic levels in Los Banos. Noise contours were based upon both existing and projected future traffic volumes that incorporate cumulative regional effects and trends. Existing noise contours were derived from traffic volumes based on counts of current traffic, and these traffic counts inherently include cumulative traffic, as generated by regional trips. With regard to future noise, projected noise contours were determined using projected 2042 traffic volumes; these data account for growth in Los Banos under the proposed project as well as anticipated regional growth. The future noise modeling that served as the foundation for the overall project analysis was therefore based on future, cumulative conditions.

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As shown in Table 4.12-9, *Traffic Noise Increases in the EIR Study Area*, traffic noise increases along SR-152 between Badger Flat Road and Ortigalita Road would be *significant*. In addition, the Pioneer Road extension and connection to Pacheco Boulevard would expose residences to traffic noise levels of 68 dBA CNEL at a distance of 50 feet where there is no existing road. Traffic noise increases along all other roadway study segments would be less than significant.

As described in impact discussion NOI-1, with implementation of proposed General Plan Action S-A8.1, notable reductions in tire noise have been achieved via the implementation of special paving materials, such as rubberized asphalt or open-grade asphalt concrete overlays. These types of roadways improvements would reduce traffic noise level increases that are estimated along SR-152 between Badger Flat Road and Ortigalita Road by 6 to 7 dBA and along the Pioneer Road extension to approximately 62 dBA CNEL at a distance of 50 feet, which would not exceed the City's noise and land use standards for Normally Acceptable (see Table 4.12-10, *Land Use Compatibility for Community Noise Environments*). Because the impacted roadway segment on SR-152 is under the jurisdiction of Caltrans, it is not feasible for the City of Los Banos to implement any roadway improvements on the segment. Accordingly, the proposed project would result in a cumulatively considerable impact related to noise and cumulative impacts would be *significant and unavoidable*.

Impact NOI-4b: General Plan 2042, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to roadway noise on State Route 152 between Badger Flat Road and Ortigalita Road.

Mitigation Measure NOI-4b: Implement Mitigation Measure NOI-1b.

Significance with Mitigation: Significant and unavoidable.

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4.13 POPULATION AND HOUSING

This chapter describes the potential population and housing impacts associated with the adoption and implementation of the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential population and housing impacts, and identifies General Plan policies that could minimize any potentially significant impacts.

4.13.1 ENVIRONMENTAL SETTING

4.13.1.1 REGULATORY FRAMEWORK

This section summarizes existing State and local laws and policies pertaining to population and housing in Los Banos. There are no federal regulations applicable to population and housing in relation to the proposed project.

State Regulations

California Housing Element Law (California Government Code Sections 65580 through 65589.8) includes provisions related to the requirements for housing elements of local government General Plans. Among these requirements, some of the necessary parts include an assessment of housing needs and an inventory of resources and constraints relevant to the meeting of these needs. Additionally, to ensure that counties and cities recognize their responsibilities in contributing to the attainment of the State housing goals, the Government Code calls for local jurisdictions to plan for, and allow the construction of, a share of the region's projected housing needs.

Regional Regulations

Merced County Association of Governments

The Merced County Association of Governments (MCAG) is the official comprehensive planning agency for the Merced County area, which is composed of the cities of Atwater, Dos Palos, Gustine, Livingston, Los Banos, Merced, and Merced County. MCAG is responsible for taking the overall regional housing needs allocation (RHNA) provided by the State and preparing a formula for allocating that housing need by income level across its jurisdiction.

MCAG is part of a three-county regional demographic forecast prepared for Merced, San Joaquin, and Stanislaus Counties by the University of Pacific (UOP) Center for Business & Policy Research to provide regional agencies with forecasts to make project funding and regulatory decisions, including the preparation of the 2018 Regional Transportation Plan and Sustainable Communities Strategy (2018 RTP/SCS) by MCAG in and the regional Ozone Attainment Plan by the San Joaquin Valley Air Pollution Control District (SJVAPCD). The General Plans, zoning regulations, and growth management programs of local jurisdictions inform UOP's projections. The projections are also developed to reflect the impact of "smart growth" policies and incentives that could be used to shift development patterns from existing and

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historical trends toward a better jobs-housing balance, increased preservation or rehabilitation of open space, and greater development and redevelopment in urban core and transit-accessible areas throughout the region.

Regional Transportation Plan / Sustainable Communities Strategy Plan

MCAG's 2018 RTP/SCS was adopted on August 16, 2018. The RTP/SCS includes four scenarios, each of which represents a different set of land use patterns, development characteristics, and transportation investments to guide growth in the region in the coming years. The four land use scenarios include: Scenario 1, Compact Development/Business as Usual; Scenario 2, Infill Emphasis; Scenario 3, Job-Housing Balance; and Scenario 4, Transit Priority Corridors. The MCAG Board adopted Scenario 2, Infill Emphasis, as the preferred scenario. Scenario 2 focuses on developing more infill development in downtown core areas and along major transportation corridors within proximity to jobs and other necessary services. Scenario 2 limits further development in new growth areas by limiting the growth of unincorporated communities. Following Scenario 2 would result in a higher average housing density of 10.3 units per acre, compared to 7.3 units per acre under Scenario 1, as well as focus on building more multi-family and small-lot single-family homes rather than large-lot single-family homes.¹

Local Regulations

Los Banos General Plan

One of the required elements of the General Plan is the Housing Element, which is not being updated as part of the proposed project. The most recent Los Banos Housing Element (2014-2023) was adopted on July 25, 2016. The 2014-2023 Housing Element includes a housing needs assessment, in which it identifies current and projected housing needs in Los Banos, as well as policies to accommodate future housing development that will be diverse and affordable to a range of household types and income ranges. Housing Element objectives and policies related to population and housing are listed in Table 4.13-1, *Housing Element Objectives and Policies Relevant to Population and Housing*.

TABLE 4.13-1 HOUSING ELEMENT OBJECTIVES AND POLICIES RELEVANT TO POPULATION AND HOUSING

Policy Number	Policy Content
Objective 1	<i>Provide adequate sites for residential development and alternate housing choices at affordable costs for all segments of the City.</i>
Policy 1.1	The City shall maintain an adequate supply of land in appropriate land use designations and zoning categories to accommodate the projected growth in the number of households.
Policy 1.4	Strive to meet the City's fair share of the regional housing need.
Policy 1.5	The City shall encourage the development of second residential units in accordance with State law, while maintaining the single family character of the neighborhood.
Objective 2	<i>Remove Governmental Constraints.</i>

¹ Merced County Association of Governments, 2018, *Regional Transportation Plan Sustainable Communities Strategy for Merced County*, pages 63 to 65.

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TABLE 4.13-1 HOUSING ELEMENT OBJECTIVES AND POLICIES RELEVANT TO POPULATION AND HOUSING

Policy 2.1	Provide for streamlined, timely, and coordinated processing of residential projects.
Objective 4	<i>Achieve energy efficient in house activities.</i>
Policy 4.1	Promote energy conservation activities in all residential neighborhoods.
Policy 4.2	Encourage innovative and cost effective building technologies.
Objective 5	<i>Ensure that all residents have access to housing.</i>
Policy 5.1	Strive to meet the city's fair share of the regional housing need and ensure that sufficient land is available to accommodate Los Banos' share of the current RHNA period ending December 31, 2023, including land needed to accommodate Los Banos' share of the need for housing affordable to extremely low, very low, low and moderate income households.
Policy 5.2	Ensure that future sites designated for higher-density housing are located near transit stops, community services and schools when feasible.
Policy 5.4	Continue to develop a balanced residential environment with access to employment opportunities, community facilities and adequate services.

Source: City of Los Banos, 2016, Housing Element, Final 2014-2023, pages 98 to 110.

4.13.1.2 EXISTING CONDITIONS

This section describes the existing population and housing conditions in Los Banos, as well as Merced County as a whole, to provide context for the analysis of the proposed project. The following text provides an overview of population, housing, and employment trends in Los Banos and the Merced County region using the most recent data available, which is not always the 2018 baseline year. Some numbers in the tables that follow include both the city and its SOI, depending on the source of the numbers, while other numbers refer to the city limit only. Each table clearly notes the geographic area included.

As of 2019, Los Banos had a total of 41,898 residents and 12,324 housing units within the city limit. The most up to date jobs data available are from 2017 and show a total estimate of 15,633 jobs within the city limit.

Population

The majority of Merced County's population is in Merced and in unincorporated areas of the county. Of the remaining cities in the county, Los Banos has the largest population, with a population approximately half the size of that of Merced. The population of Los Banos grew from 35,972 in 2010 to 42,869 in 2021. As shown in Table 4.13-2, *Total Population, 2010 to 2021*, the City's population grew by approximately 19 percent; this growth was higher than the level of population growth in Merced County as a whole, which was 11 percent during the same period. This level of growth was also higher than that of Merced and the unincorporated areas of Merced County.

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TABLE 4.13-2 TOTAL POPULATION, 2010 TO 2021

	2010	2021	Total Change	Total Percent Change
Los Banos	35,972	42,869	6,897	19%
Merced	78,958	90,971	12,013	15%
Unincorporated Merced County	89,167	92,318	3,151	4%
Total Merced County	255,793	284,836	29,043	11%

Source: State of California, Department of Finance, 2021, *E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2021*.

Housing

Between 2010 and 2021, Los Banos experienced a steady housing growth. As shown in Table 4.13-3, *Housing Units, 2010 to 2021*, the city's number of housing units grew by approximately 13 percent; this growth was higher than the level of housing growth in Merced County as a whole, which was 7 percent during the same period. This level of growth was also higher than that of the City of Merced and the unincorporated areas of Merced County.

TABLE 4.13-3 HOUSING UNITS, 2010 TO 2021

	2010	2021	Total Change	Total Percent Change
Los Banos	11,375	12,826	1,451	13%
Merced	27,446	30,041	2,595	9%
Unincorporated Merced County	27,999	28,647	648	2%
Total Merced County	83,698	89,555	5,857	7%

Source: State of California, Department of Finance, 2021, *E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2021*.

Employment

According to data from the California Employment Development Department, Los Banos had 17,100 residents in the labor force as of December 2021, 15,300 of whom were employed, as shown in Table 4.13-4, *Employment Among Residents, December 2021*. At 10.5 percent, the unemployment rate in Los Banos was higher than the countywide unemployment rate of 8.2 percent.

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TABLE 4.13-4 EMPLOYMENT AMONG RESIDENTS, DECEMBER 2021

Geography	Number of Workers		Unemployment Rate
	Employed	In Labor Force	
Los Banos	15,300	17,100	10.5%
Merced	31,300	33,400	6.3%
Total Merced County	105,200	114,600	8.2%

Note: Data are not seasonally adjusted.

Source: California Employment Development Department, December 2021,

<https://www.labormarketinfo.edd.ca.gov/file/lfmonth/mercesub.xlsx>, accessed January 28, 2022.

4.13.1.3 GROWTH PROJECTIONS

Growth forecasts for Los Banos and Merced County, based on the projections prepared by UOP, are shown in Table 4.13-5, *Regional Growth Projections, 2021 to 2042*. As noted previously, MCAG used these projections as the basis for the 2018 RTP/SCS. The data in Table 4.12-5 compares Department of Finance data for existing (2021) conditions to the UOP growth forecasts, interpolated to reflect the proposed General Plan update's buildout year of 2042.

TABLE 4.13-5 REGIONAL GROWTH PROJECTIONS, 2021 TO 2042

	2021	2042	Total Change	Total Percent Change
Los Banos				
Population	42,869	57,420	14,551	34%
Housing Units	12,826	18,107	5,281	41%
Jobs	7,036	9,329	2,293	33%
Merced County				
Population	284,836	388,939	104,103	37%
Housing Units	89,555	123,730	34,175	38%
Jobs	82,825	105,766	22,941	28%

Source: State of California, Department of Finance, 2021, E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2021; University of the Pacific, Eberhardt School of Business, Center for Business & Policy Research, Merced County Forecast Summary, 2016. Jobs data for 2021 has been interpolated from 2020 and 2025 data from the University of the Pacific. Data for 2042 has been interpolated from 2040 and 2045 data from the University of the Pacific.

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4.13.2 STANDARDS OF SIGNIFICANCE

The implementation of the proposed project would result in significant population and housing impacts if it would:

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).
2. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.
3. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to population and housing.

4.13.3 IMPACT DISCUSSION

POP-1	Implementation of the proposed project would not 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).
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The proposed General Plan 2042 is a high-level policy document that will replace the current General Plan 2030 as the overarching policy document that defines a vision for future change and sets the land use and policy framework for growth for Los Banos. The proposed General Plan 2042 considers growth over a 20-year period but does not include specific development proposals. The General Plan is the policy document that plans ahead to accommodate the amount of reasonably foreseeable growth given past growth trends and the ability of existing services and infrastructure to support future growth. Therefore, the proposed General Plan 2042 would not directly induce growth, but rather is a response to growth that is likely to occur whether the proposed General Plan 2042 is adopted or not. Because the proposed General Plan 2042 also includes recommendations for future roadway and infrastructure extension, as it is required to do by State law, it has the potential to indirectly induce growth. However, the proposed General Plan 2042 itself is the City's effort to adequately plan for this growth.

As described in Chapter 3, *Project Description*, of this Draft EIR, the proposed General Plan 2042 does not introduce any new land use designation types. The proposed land use map is largely consistent with the City's existing land use map, but targeted updates have been made to individual parcels to reflect desired uses, including changes from Neighborhood Commercial and Industrial to Commercial; changes from Commercial to Low Density Residential and Medium Density Residential; and changes from Medium Density Residential to High Density Residential.

The proposed General Plan 2042 also includes changes to the City's planning boundaries, as follows: the Urban Growth Boundary (UGB) would be extended slightly further to the east and south, but would be reduced in overall size, from 20 square miles to 19 square miles; the Sphere of Influence (SOI) would be

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extended further to the east and south and would be increased in overall size, from 18 square miles to 23 square miles; and a new planning boundary, the Area of Interest (AOI), would be established to identify areas north and south of the SOI where the Los Banos community has an interest in land use and transportation planning.

As described in Chapter 3, the purpose of the UGB is to direct growth in a focused, compact way to protect surrounding agricultural and open space land. Prior to urbanization, large-parcel uses, including farming, are encouraged on land inside the UGB but outside the city limit. The SOI is considered the City's ultimate potential area for future annexation and provision of City services. Properties within the City's SOI but outside the city limit are in Merced County and therefore subject to County land use regulations.

As under the current General Plan, the proposed General Plan 2042 land use map applies urban land uses to lands that are currently in agricultural use. Under the proposed land use map, the majority of land designated as agricultural within the City's SOI would be converted to non-agricultural uses, including residential, commercial, office, industrial, and institutional land uses, over the lifetime of the proposed project.

Table 4.13-6, *Buildout Comparison of Current General Plan and General Plan 2042 to Regional Growth Projections*, compares the buildout projections under the current General Plan and proposed General Plan 2042 to the projections prepared by the University of the Pacific. As shown in Table 4.13-6, the expected buildout under the proposed General Plan update would exceed the regional growth projections for 2042 for population, housing, and jobs.

TABLE 4.13-6 BUILDOUT COMPARISON OF CURRENT GENERAL PLAN AND GENERAL PLAN 2042 TO REGIONAL GROWTH PROJECTIONS

	Regional Growth Projections (2042)	Current General Plan (2030)	Proposed General Plan (2042)
Population	57,420	90,400	72,500
Housing Units	18,107	28,600	21,700
Jobs	9,329	19,700	12,000

Source: University of the Pacific, Eberhardt School of Business, Center for Business & Policy Research, Merced County Forecast Summary, 2016.

As is evident in Table 4.13-6, the proposed project would include a significant decrease in the projected growth of population, housing, and jobs under the current General Plan. Based on a review of existing conditions and projected trends, the City is not on track to meet the 2030 buildout estimates of the current General Plan and is accordingly revising local growth projections to be more in line with regional growth projections. The projected General Plan 2042 buildout would also be well within levels of local growth previously planned by the City of Los Banos.

The General Plan 2042 Land Use (LU) Element contains goals, policies, and actions that require local planning and development decisions to consider impacts from potential future growth. The proposed goals, policies, and actions support orderly growth, sustainable development patterns, and require

POPULATION AND HOUSING

infrastructure in place prior to development. The following General Plan 2042 goals, policies, and actions would serve to minimize potential adverse land use impacts:

- **Goal LU-1.** Provide for orderly, well-planned, and balanced development.
 - **Policy LU-P1.1.** Promote sustainable, balanced, and well-paced growth and land use patterns that meet existing and future needs of Los Banos.
 - **Policy LU-P1.2.** Maintain a well-defined compact urban form, with a defined urban growth boundary and development intensities on land designated for urban uses.
 - **Policy LU-P1.3.** Require that any land requested to be annexed be contiguous with the existing city limits, within the Urban Growth Boundary, and within the Sphere of Influence.
 - **Policy LU-P1.4.** Require lands outside, but adjacent to, the current city limits to annex to the City of Los Banos prior to approval of new development or provision of any City services.
 - **Policy LU-P1.5.** Prior to annexation, the City must find that adequate police, fire, and other public safety services can be provided.
 - **Policy LU-P1.6.** Require that new development projects include full mitigation of impacts to City-funded services and infrastructure, including parks and recreational services, police and fire services, and City-owned infrastructure, both on- and off-site.
 - **Policy LU-P1.7.** Ensure that new development provides for infrastructure, schools, parks, neighborhood shops, and community facilities in close proximity to residents.
 - **Policy LU-P1.8.** Require areas annexed to the City to be served by City utilities. Prohibit new wells and septic systems to serve urban development within the city limits. Conversely, do not provide utility services, water, and sanitary sewer to new development outside of the city limits unless annexation is approved. Prior to annexation, the City must find that adequate water supply and service and wastewater treatment and disposal capacity can be provided. Existing water supplies must remain with the land and be transferred to the City upon annexation approval.
 - **Policy LU-P1.9.** Coordinate land use planning efforts between City departments and with local institutions and regional agencies.
 - **Policy LU-P1.10.** When approved development within the city reaches the maximum number of residential units or any of the nonresidential square footages projected in the General Plan Environmental Impact Report (EIR), require that environmental review conducted for any subsequent development project address growth impacts that would occur due to development exceeding the General Plan EIR's projections. This does not preclude the City, as lead agency, from determining that an EIR would be required for any development in the Sphere of Influence to the extent required under the relevant provisions of the California Environmental Quality Act (e.g., Section 21166 and related guidelines). The City will conduct the appropriate scoping at the time of initial study for any project, all in accordance with these requirements.
 - **Policy LU-P1.11.** Monitor growth rates to ensure they do not overburden the City's infrastructure and services or exceed the amounts analyzed in the General Plan Environmental Impact Report.

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- **Policy LU-P1.12.** Locate land uses to balance travel origins (homes) and destinations (schools, shopping, and jobs) as close as possible to reduce vehicle miles traveled (VMT).
- **Policy LU-P1.13.** The Urban Growth Boundary (UGB) shall be amended only by a majority vote of the City Council that follows a public hearing and adopts one or more of the following findings based on substantial evidence in the record:
 - A natural or humanmade disaster or public emergency has occurred that warrants the provision of housing and/or other community needs on land outside the UGB.
 - An objective study has determined that the UGB is preventing the City from providing its fair share of affordable housing, or regional housing, as required by State law, and the City Council finds that a change to the UGB is the only feasible means to enable the City to meet these requirements of State law.
 - The land subject to the change is immediately adjacent to developed land and water and sewer connections are available.
 - The change is required to conform to applicable California or federal law.
 - Project-level and cumulative impacts affecting environmental resources, particularly in the Grasslands Ecological Area (GEA), will be mitigated to less-than-significant levels.
- **Action LU-A1.3.** Adopt a Growth Management Program to monitor growth and ensure that provision of public facilities and utilities are aligned with development and track the amount of growth relative to what was analyzed in the General Plan Environmental Impact Report.
- **Action LU-A1.4.** Regularly evaluate and implement adjustments to the City's fee structure to encourage development in areas where infrastructure is already present and ensure that non-infill development pays its fair share of anticipated citywide capital facilities and operational costs.

The proposed General Plan would accommodate future growth by providing for infrastructure and associated public services to accommodate the projected growth of the city (see also Chapter 4.14, *Public Services, Parks, and Recreation*; Chapter 4.15, *Transportation*; and Chapter 4.16, *Utilities and Service Systems*). All potential future development would be required to comply with any required site-specific infrastructure improvements and to pay any project-specific impact fees. As described previously, the proposed General Plan maintains the City's UGB to direct growth in a focused, compact way. Furthermore, as shown in Table 4.13-6, buildout under the proposed General Plan would represent a notable reduction when compared to growth levels previously planned and analyzed under the current General Plan. Consequently, while buildout in accordance with the proposed General Plan would serve to accommodate expected population, housing, and job growth in the city, this growth would not represent unplanned population growth for which inadequate planning has occurred, and the impact would be *less than significant*.

Significance without Mitigation: Less than significant.

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POP-2	Implementation of the proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.
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One of the purposes of proposed General Plan is to adequately plan and accommodate future growth through the distribution, location, balance, and extent of land uses. Implementation of General Plan would accommodate population growth through land use designations, goals, and policies that provide a vision and guide growth in the city. Land use changes under the proposed land use map would increase opportunities for housing in the city. The proposed land use map would provide land use designations for a variety of housing types and provide for additional residential opportunities throughout Los Banos. As shown in Table 4.13-1, *Housing Element Objectives and Policies Relevant to Population and Housing*, the City implements policies that address potential residential displacement in the EIR Study Area. Therefore, implementation of the proposed General Plan would not displace existing people or housing or necessitate the construction of replacement housing elsewhere and the impact would be *less than significant*.

Significance without Mitigation: Less than significant.

POP-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 population and housing.
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The context for the cumulative population and housing impacts would be potential future development under the proposed project combined with development on lands adjacent to the City's UGB, SOI, and AOI. As described in impact discussions POP-1 and POP-2, implementation of the proposed project would not induce a substantial amount of unplanned population growth or growth for which inadequate planning has occurred, or displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. The proposed and existing General Plan goals, policies, and programs, and implementing Annexation Ordinance, would provide adequate planning to accommodate the proposed new increase in growth in the City's planning boundaries. Therefore, the proposed project would not result in a cumulatively considerable impact to population and housing, and cumulative impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

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4.14 PUBLIC SERVICES, PARKS, AND RECREATION

This chapter describes the potential impacts to public services (fire, police, and schools) and parks and recreation associated with the adoption and implementation of the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential public service, and parks and recreation impacts, and identifies General Plan policies that could minimize any potentially significant impacts.

Correspondence obtained from interviews regarding the proposed project with public service agencies, including the Los Banos Fire Department, Los Banos Police Department, Los Banos Unified School District, and the Los Banos Parks and Recreation Division, are included in Appendix G, *Public Services Data*, of this Draft Environmental Impact Report (EIR).

4.14.1 FIRE PROTECTION SERVICES

4.14.1.1 ENVIRONMENTAL SETTING

This section describes regulations, resources, facilities, equipment, response times, and budget for fire protection services. The analysis in this section is based on the *Los Banos Fire Department Strategic Plan and Standard of Cover* (LBFD Strategic Plan), prepared on behalf of the Los Banos Fire Department (LBFD) in February 2019. Information was also provided through correspondence between PlaceWorks and Fire Chief Mason Hurley in February 2022.

Regulatory Framework

State Regulations

California Government Code

Section 65302 of the California Government Code requires General Plans to include a Safety Element, which must include an assessment of wildland and urban fire hazards. The Safety and Resilience Element of the existing General Plan and the proposed General Plan satisfies this requirement.

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. The Office of the State Fire Marshal supports CAL FIRE's mission to protect life and property through fire prevention engineering programs, law and code enforcement, and education.

California Building Code

The State of California provides a minimum standard for building design through Title 24 of the California Code of Regulations (CCR), commonly referred to as the California Building Code (CBC). The CBC is in Part 2 of Title 24. The CBC is updated every three years. It is generally adopted on a jurisdiction-by-jurisdiction

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basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local City building officials for compliance with the CBC. Typical fire safety requirements of the CBC include the installation of sprinklers in all high-rise buildings and other facilities; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction in high fire hazard severity zones; requirements for smoke-detection systems and exiting requirements; and the clearance of debris.

California Fire Code

The California Fire Code (CFC) incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. This is the official Fire Code for the State and all political subdivisions. It is found in CCR Title 24, Part 9 and, like the CBC, it is revised and published every three years by the California Building Standards Commission. Also like the CBC, the CFC is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions.

The CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Typical fire safety requirements include installation of sprinklers in all high-rise buildings; 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.

Regional Regulations

Merced County Multi-Jurisdictional Hazard Mitigation Plan

The Merced County Office of Emergency Services, together with several jurisdictions in Merced County, including the City of Los Banos, prepared the *Multi-jurisdictional Hazard Mitigation Plan* (MJHMP). The MJHMP was prepared in accordance with the Disaster Mitigation Act of 2000 and followed the Federal Emergency Management Agency (FEMA) 2011 Local Hazard Mitigation Plan guidance. The MJHMP, adopted in 2014, includes hazard mitigation goals, strategies, and priorities, and provides a comprehensive assessment of the area's hazards and vulnerabilities. The MJHMP is a guide to hazard mitigation throughout Merced County and serves as a tool to help decision makers direct hazard mitigation activities and resources. In the context of the MJHMP, mitigation is an action that reduces or eliminates long-term risk to people and property from hazards, including those occurring naturally and those caused by humans such as wildfire.

The County released a draft update to the MJHMP in 2021 (herein referred to as the "2021 Draft MJHMP"). The hazard mitigation plan for Los Banos is Annex E of the 2021 Draft MJHMP and includes a section on wildfire hazards that includes a maps wildfire threat areas and wildfire hazard classes in and around Los Banos. A description of the mitigation actions for wildfires include:¹

¹ Merced County, 2021, *Merced County Hazard Mitigation Plan Update 2021-2026, Annex E: City of Los Banos*, https://web2.co.merced.ca.us/pdfs/oes/AnnexE_CityOfLosBanos_DRAFT_9-24-21.pdf, accessed January 25, 2022.

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- **Participate in Countywide Public Education Program.** A natural hazards education and awareness program in Merced County would be a valuable tool for sharing information with residents. Implementation ideas include sharing information online and conducting workshops. The county will partner with special districts, the cities, and other entities to provide awareness and education on hazards and steps to mitigate.
- **Integrate Local Hazard Mitigation Plan into Safety Element of General Plan.** Recognizing the potential duplication of effort over evaluation of the same issues, efforts to update the Health and Safety Element will be conducted in coordination with the multi-hazard mitigation plan and to also ensure Assembly Bill 2140 Compliance. Integration and coordination of both plans provides General Plan policy direction for development activity. Potential loss reductions in the \$1,000s as any new development within the county will be considered within the context of the County's Health and Safety Element.
- **Review Building Codes.** Periodically review building codes for updates and enhancements and ensure necessary capabilities for enforcement.
- **Wildfire Fuels.** Implement and Monitor Weed Abatement Program to Reduce Wildfire Fuels.
- **Emergency Preparation.** Prepare a Shelter, and Emergency Provision Plan to Ensure Adequate Space and Supplies.

The 2021 Draft MJHMP has identified the types and levels of fire responsibility areas for the EIR Study Area. This is shown on Figure 4.17-1, *Fire Hazard Severity Zones*, in Chapter 4.17, *Wildfire*, of this Draft EIR.

Local Regulations

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives to minimize adverse impacts resulting from fire. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions related to fire impacts are included in Title 2, *Administration*, Title 3, *Finance*, Title 4, *Public Safety*, and Title 8, *Building Regulations*, as follows:

- **Chapter 3, *Officers and Employees*.** This chapter establishes a Department of Public Safety for the City of Los Banos. The Department of Public Safety shall be responsible for the administration and provision of public safety services which shall include police protection, fire protection, and other related public safety services.
 - **Section 2-3.203, *Department of Public Safety*,** establishes the Fire Services Division.
 - **Section 2-3.205, *Fire Services Division*,** establishes the roles and responsibilities of the Fire Services Division including the position of Chief of Fire Services, who is responsible for management, administration, and provision of the Fire Services Division, which shall include the Volunteer Fire Department.
- **Chapter 12.1, *Los Banos Police, Fire, Public Safety/911 Special Transactions (Sales) and Use Tax*.** This chapter is adopted for the special purpose of funding additional public safety personnel, supplies and

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services, capital outlay items, equipment, facilities and technology improvements over the term of the tax imposed under this chapter and paying for all incidental costs of operating this special transactions (sales) and use tax program, including administration and collections costs reimbursable to the State Board of Equalization, with any unused revenue committed to police and firefighting equipment and services.

- **Chapter 3, *Fire Prevention Code*.** This chapter includes provisions to prevent fire and protect the residents and visitors of Los Banos from fire related hazards.
 - **Section 4-3.01, *Adoption of the California Fire Code 2019 Edition*.** This section adopts the CFC in its entirety, subject, however, to the amendments, additions, and deletions set forth in this chapter. The purpose of the CFC is to prescribe regulations and building standards in order to protect life and property from fire, explosion, earthquake, and other disasters and to provide for permits.
 - **Section 4-3.08, *Fire Zones*.** Under this section a Fire District is established, thereby declaring the entire area of the city as a Fire District divided into three fire zones.
- **Chapter 1, *Building Codes*.** This chapter includes Section 8-1.01, *Adoption of the California Building Code 2019 Edition*, which adopts the CBC in its entirety, subject, however, to the amendments, additions, and deletions set forth in this chapter. The purpose of the CBC is to prescribe regulations governing the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of all buildings and structures within the city. The CBC includes the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

Los Banos Fire Department Strategic Plan and Standard of Cover

The LBFD approved the LBFD Strategic Plan in February 2019. The LBFD Strategic Plan includes a review of the operations of the LBFD and its operational needs, and addresses community risk assessment, response time analysis, resource allocations, response network, and staffing resources. While the LBFD Strategic Plan is not a regulatory tool per se, it provides a series of recommendations to identify areas the LBFD can become more effective and efficient in the response to calls for service for fire and emergency medical needs.

Existing Conditions

Staffing and Facilities

The LBFD mission is to protect lives and property by providing professional care and fast response times.² The LBFD includes a Career Fire Department and Volunteer Fire Department which operate out of two fire stations referred to as Station 1 and Station 2. Merced County also has one operating fire station (Station 71) within the city limit. See Figure 4.14-1, *Fire and Police Stations*.

² City of Los Banos, City of Los Banos 2021-2021 Adopted Budget, 2021-2022, <https://losbanos.org/wp-content/uploads/2021/11/FY-2021-2022-Adopted-Budget-.pdf>, page 150, accessed on February 23, 2022.

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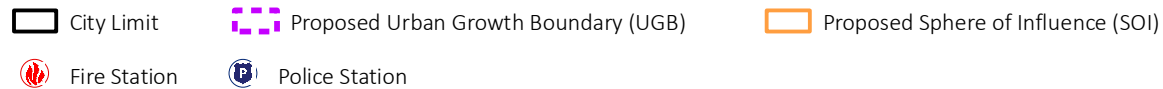
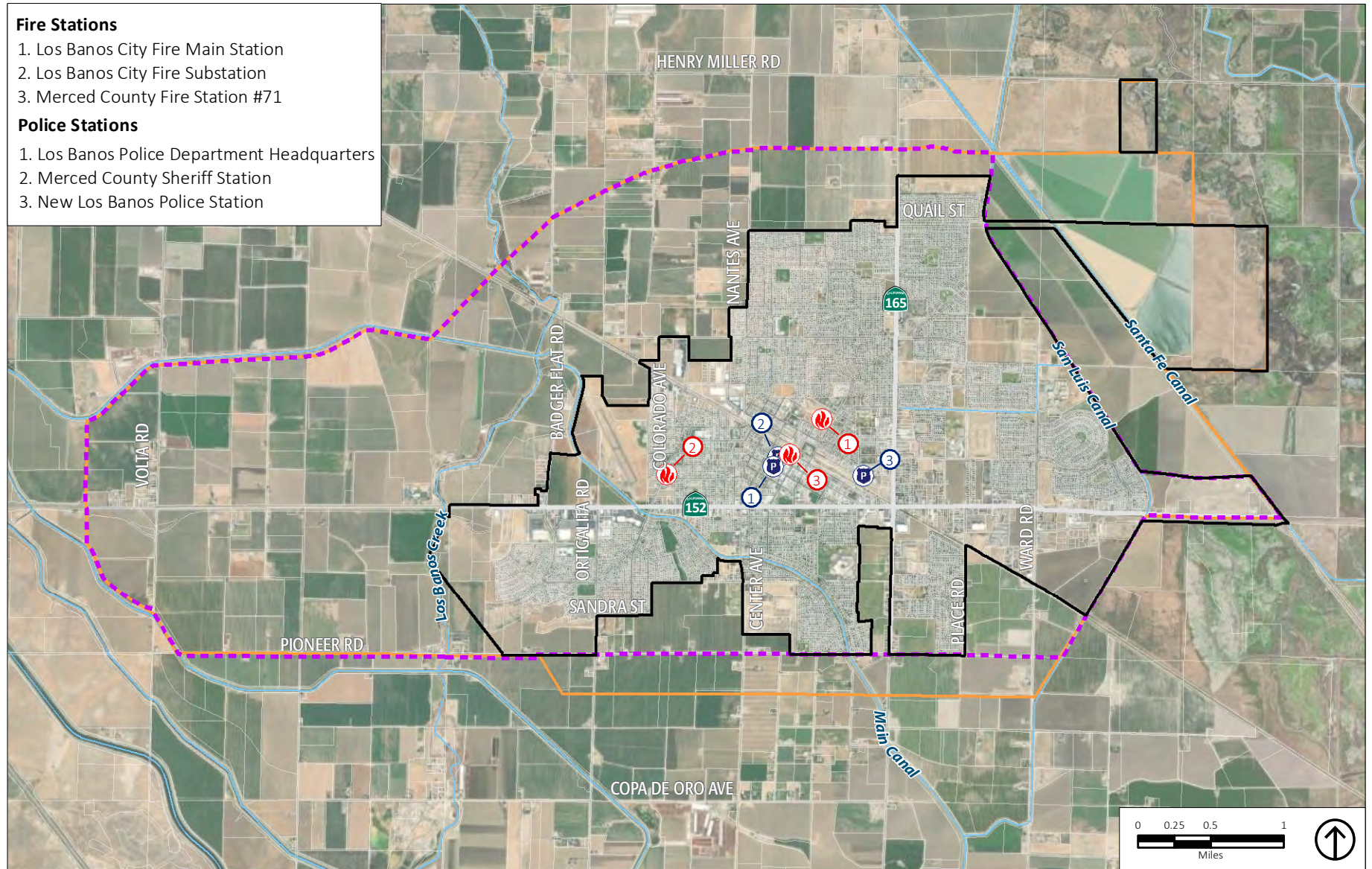


Figure 4.14-1
Fire and Police Stations

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The LBFD is responsible for providing fire operations, fire prevention and fire prevention education, planning, and building code operations, including fire inspections, and first responder services and Emergency Medical Technicians or EMTs for the delivery of emergency medical services to all areas within the city limit. The LBFD participates in the statewide Master Mutual Aid Plan and provides mutual aid for fire and rescue and Emergency Medical Services (EMS) to other local agencies in Merced County.³ In addition, the LBFD participated in the preparation of the MJHMP described in Section 4.14.1.1, *Environmental Setting*.

The LBFD is funded for 16 full-time career fire personnel, 4 administrative staff, and 16 volunteer firefighters. Though there are existing funds for 16 employees, the LBFD currently employs 13 career fire personnel and is in the hiring process to fulfill the remaining vacancies.⁴

The National Fire Protection Association (NFPA) establishes a standard for the minimum level of staffing per fire engine, which is four personnel per fire engine. Meeting this would require a total of 48 staff for the LBFD. The LBFD does not have enough staff to meet this staffing level.⁵

The LBFD operates with a minimum standard of two personnel on duty at Station 1, and two personnel at Station 2 at all times.⁶ The LBFD does not always meet that requirement. Currently, the LBFD staffs a firefighter, engineer, and captain at Station 1 for each shift, and one captain and one engineer at Station 2 for each shift. According to the Fire Chief, there are plans and desires to expand the current stations. Station 1 requires modifications to improve facility office space and dorms. Additionally, there is an identified need to build a third station to cover the southeast portion of the city as well as plans for a fourth station on the western portion of the city. The LBFD does not yet have funding or designs for these new additional stations.⁷

Response Times and Performance

The LBFD uses the Insurance Services Office (ISO) to evaluate staffing and facilities need. The ISO surveys communities across the United States and assigns a public protection classification (PPC) grade, which is used to establish property insurance rates in an area. Los Banos prides itself on its ISO rating of 3, on a scale of 1 to 10 with 1 being the highest.⁸ According to the LBFD Strategic Plan, the travel time benchmark, which uses a 90 percent fractal time and represents the goal or industry standard, is a response time of 4 minutes.⁹ The response time baseline for all fire emergencies, which is generally defined as the travel time the LBFD is currently achieving and is acceptable, is 5 minutes and 12 seconds

³City of Los Banos, City of Los Banos 2021-2021 Adopted Budget, 2021-2022, <https://losbanos.org/wp-content/uploads/2021/11/FY-2021-2022-Adopted-Budget-.pdf>, page 150, accessed on February 23, 2022.

⁴ Hurley, Mason. Fire Chief, Los Banos Fire Department. Personal communication with PlaceWorks, February 10, 2022.

⁵ Hurley, Mason. Fire Chief, Los Banos Fire Department. Personal communication with PlaceWorks, February 10, 2022.

⁶ Hurley, Mason. Fire Chief, Los Banos Fire Department. Personal communication with PlaceWorks, February 10, 2022.

⁷ Hurley, Mason. Fire Chief, Los Banos Fire Department. Personal communication with PlaceWorks, February 10, 2022.

⁸ City of Los Banos, *Los Banos Fire Department Strategic Plan and Standard of Cover*, prepared by Matrix Consulting Group for the City of Los Banos, 2019, page 14, accessed on February 23, 2022.

⁹ City of Los Banos, *Los Banos Fire Department Strategic Plan and Standard of Cover*, prepared by Matrix Consulting Group, 2019, page 52, accessed on February 23, 2022.

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using 70 percent fractal time. The current LBFD average response time is 5 to 6 minutes. Therefore, the current response time is slightly below the threshold.

Funding

The LBFD collects direct revenue from various sources such as State and federal, fees for services, reimbursement from Merced County, and EMS. The LBFD seeks additional funding from the City's General Fund and the Community Facilities District (CFD), instituted in 2012.¹⁰ This fund collects special taxes to fund public protection services. Measure P is a public safety tax measures passed in 2004, providing 0.5 percent sales tax and is split equally into two funds for fire and police services.¹¹ In 2010, the City imposed a development impact fee to pay additional fire services, including infrastructure. Measure H, passed in 2018, is a general sales tax providing 0.5 percent sales tax for public safety and recreation programs.¹² These tax increases are based on a yearly Consumer Price Index.

Table 4.14-1, *City of Los Banos 2021 Adjusted Development Impact Fees*, shows the current adjusted development impact fees for the City, which includes fees provided for fire protection services as well as other public services.

TABLE 4.14-1 CITY OF LOS BANOS 2021 ADJUSTED DEVELOPMENT IMPACT FEES

Development	Fire	Police	Parks & Recreation	Water	Sewer	Storm Drain	Traffic	General	Administration (3%)
Single Family	\$1,292	\$2,418	\$7,218	\$6,488	\$4,978	\$3,038	\$1,339	\$721	\$825
Multi-family	\$1,033	\$1,934	\$5,774	\$5,190	\$3,983	\$2,431	\$927	\$577	\$655
Age Restricted	\$699	\$1,308	\$3,907	\$3,511	\$2,695	\$1,644	\$723	\$390	\$447
Retail	\$736	\$1,377	--	\$3,696	\$2,837	\$1,732	\$6,670	--	\$511
Office	\$553	\$1,033	--	\$2,773	\$2,127	\$1,298	\$1,336	--	\$273
Institutional	\$276	\$517	--	\$1,386	\$1,064	\$649	\$1,617	--	\$165
Industrial	\$184	\$344	--	\$924	\$709	\$432	\$1,135	--	\$112

Notes: Fees are rounded to the nearest dollar.

Source: City of Los Banos, 2022.

Water Supply

Fire water pressure must be considered when planning capacity increases for new development. The City's development review process requires consultation with the Los Banos Public Works Department

¹⁰ City of Los Banos, City of Los Banos 2021-2021 Adopted Budget, 2021-2022, <https://losbanos.org/wp-content/uploads/2021/11/FY-2021-2022-Adopted-Budget-.pdf>, pages 5-6, accessed on February 23, 2022.

¹¹ City of Los Banos, City of Los Banos 2021-2021 Adopted Budget, 2021-2022, <https://losbanos.org/wp-content/uploads/2021/11/FY-2021-2022-Adopted-Budget-.pdf>, page 150, accessed on February 23, 2022.

¹² City of Los Banos, City of Los Banos 2021-2021 Adopted Budget, 2021-2022, <https://losbanos.org/wp-content/uploads/2021/11/FY-2021-2022-Adopted-Budget-.pdf>, page 150, accessed on February 23, 2022.

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(PWD) to ensure adequate water supply necessary for a fire emergency. The City maintains local hydrants while the PWD is responsible for fire flow. PWD typically calculates required fire flow in accordance with Uniform Fire Code and Insurance Services Office guidelines. Peak load requirements vary based on building construction, size, type, and location, and may be modified by the addition of fire alarm or sprinkler systems. Fire flow requirements are met in most of the EIR Study Area; deficient areas are identified by the PWD, ranked along with others in the service area, and scheduled for upgrade based on need and funding availability.

4.14.1.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in a significant impact related to fire protection services if it would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.
2. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact.

4.14.1.3 IMPACT DISCUSSION

PS-1	Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.
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New development in the city and the proposed Sphere of Influence (SOI) would be served by the LBFD. A significant impact to the LBFD would result if, in order for the LBFD to adequately serve the area, increased demand in the city limit and SOI would require the construction of new facilities or the expansion of existing facilities, the construction or operation of which would cause significant environmental impacts. The LBFD has indicated that existing stations would be inadequate to accommodate future needs.¹³

The proposed project would allow for increased development within the EIR Study Area, which would increase the service population of the LBFD above existing conditions. Additionally, the proposed expansion of the SOI would potentially expand the service area of the LBFD as well. Development allowed by the proposed project would include new housing and nonresidential development, with associated increases to resident and employee population. The LBFD has indicated that currently there are plans to expand current fire stations: Station 1 needs improvements in facility office space and dorms, and there is

¹³ Hurley, Mason. Fire Chief, Los Banos Fire Department. Personal communication with PlaceWorks, February 10, 2022.

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a need to build two new stations (Station 3 and Station 4). Potential locations have been identified for Stations 3 and 4, but no funding has been identified nor have any preliminary building plans been prepared. By the horizon year of 2042 of the proposed project, the LBFD could require a fifth station as well as a result of the proposed project.¹⁴

The General Plan 2042 Land Use (LU) Element, Safety and Noise (S) Element, and Public Facilities and Services (PFS) Element contain goals, policies, and actions that require local planning and development decisions to consider and mitigate impacts that potential future development could have on fire protection service facilities. The following goals, policies, and actions would serve to reduce impacts to fire protection service facilities and services in the EIR Study Area:

- **Goal LU-1.** Provide for orderly, well-planned, and balanced development.
 - **Policy LU-P1.2.** Maintain a well-defined compact urban form, with a defined urban growth boundary and development intensities on land designated for urban uses.
 - **Policy LU-P1.3.** Require that any land requested to be annexed be contiguous with the existing city limits, within the Urban Growth Boundary, and within the Sphere of Influence.
 - **Policy LU-P1.5.** Prior to annexation, the City must find that adequate police, fire, and other public safety services can be provided.
 - **Policy LU-P1.6.** Require that new development projects include full mitigation of impacts to City-funded services and infrastructure, including parks and recreational services, police and fire services, and City-owned infrastructure, both on- and off-site.
 - **Policy LU-P1.7.** Ensure that new development provides for infrastructure, schools, parks, neighborhood shops, and community facilities in close proximity to residents.
 - **Policy LU-P1.8.** Require areas annexed to the City to be served by City utilities. Prohibit new wells and septic systems to serve urban development within the city limits. Conversely, do not provide utility services, water, and sanitary sewer to new development outside of the city limits unless annexation is approved. Prior to annexation, the City must find that adequate water supply and service and wastewater treatment and disposal capacity can be provided. Existing water supplies must remain with the land and be transferred to the City upon annexation approval.
 - **Policy LU-P1.9.** Coordinate land use planning efforts between City departments and with local institutions and regional agencies.
 - **Policy LU-P1.11.** Monitor growth rates to ensure they do not overburden the City's infrastructure and services or exceed the amounts analyzed in the General Plan Environmental Impact Report.
- **Goal LU-2.** Foster neighborhoods with exceptional amenities and design, broad-based opportunity, and a shared sense of identity.
 - **Policy LU-P2.5.** Require new developments and infill projects to include space for civic and institutional uses, to be maintained through capital projects, such as parks and open spaces, police and fire services, water and sanitary facilities, infrastructure, and other City services.

¹⁴ Hurley, Mason. Fire Chief, Los Banos Fire Department. Personal communication with PlaceWorks, February 10, 2022.

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- **Policy LU-P2.11.** Locate a diverse range of civic, institutional, and community land uses in close proximity to neighborhoods, where feasible.
- **Goal LU-3.** Provide a clear process for annexation proposals that ensures the proposals meet the requirements and needs of the Los Banos community.
 - **Policy LU-P3.1.** Annexation proposals are required to meet the following basic requirements:
 - a. **Location.** Require that any land requested to be annexed be contiguous with the existing City limits, within the Urban Growth Boundary, and at least 75 percent within the Sphere of Influence.
 - b. **Consistency.** Require that any land requested to be annexed is consistent with the policies of the City's General Plan and all appropriate City development standards.
 - c. **Timing of Development.** Require lands outside, but adjacent to, the current city limits to annex to the City of Los Banos prior to approval of new development.
 - d. **Utilities.** Require areas annexed to the City to be served by City utilities. Prohibit new wells and septic systems to serve urban development within the city limits. Conversely, do not provide City utility services, water, and sanitary sewer to new development outside of the city limits unless annexation is approved. Prior to annexation, the City must find that adequate water supply and service and wastewater treatment and disposal capacity can be provided. Existing water supplies must remain with the land and be transferred to the City upon annexation approval.
 - e. **Public Safety.** Prior to annexation, the City must find that adequate police, fire, and other public safety services can be provided.
 - f. **Mitigation.** Require that new development projects include full mitigation of impacts to parks and recreational services, police and fire services, and public infrastructure, both on- and off-site.
- **Goal S-4.** Protect Los Banos' residents and businesses from potential wildfire and structural fire hazards through data-driven decision-making and community planning efforts.
 - **Policy S-P4.1.** Maintain a five- to six-minute response standard for fire service within a 1.5-mile radius of a fire station.
 - **Policy S-P4.2.** Require adequate firefighting infrastructure and access for emergency vehicles in all new development, including adequate street width, vertical clearance on new streets, high-visibility street signs in all conditions, and minimum water pressure necessary for sustained fire suppression.
 - **Policy S-P4.3.** Ensure Fire Department personnel are trained in wildfire prevention, response, and evacuation procedures.
 - **Action S-A4.1.** Assess the manpower, facility, and equipment needs of police and fire services as the city undergoes expansion to provide all residents with an optimal level of protection.
 - **Action S-A4.2.** Maintain mutual aid agreements with Merced County, CAL FIRE, and nearby cities.

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- **Goal S-6.** Minimize the risk of personal injury, property damage, and environmental damage from both natural and human-made disasters and improve natural disaster response capabilities through a variety of emergency preparedness measures.
 - **Policy S-P6.1.** Increase the resilience of important or critical-use structures (such as hospitals, schools, fire, police, cooling centers, and public assembly facilities, substations, and utilities) through input during site selection and a comprehensive investigation into existing fire, flooding, and geotechnical conditions and to ensure that these facilities are operable both mid- and post-disaster events that affect Los Banos.
 - **Action S-A6.1.** Continue to participate in County-led efforts to regularly update and implement the Merced County Multi-jurisdictional Hazard Mitigation Plan (MJHMP), consistent with guidelines of the Federal Emergency Management Agency (FEMA) and the Disaster Act of 2000.
 - **Action S-A6.2.** Work with owners and operators of critical use facilities (i.e., hospitals, police stations, public assembly facilities, transportation services) to ensure that they can provide alternate sources of electricity, water, and sewerage in the event that regular utilities are interrupted in a disaster.
 - **Action S-A6.3.** Maintain and improve current early-warning systems and response facilities (Local Emergency Operations Center, National Warning System, civil preparedness radio systems, etc.).
 - **Action S-A6.4.** Coordinate regular emergency drills with City and County emergency service providers.
 - **Action S-A6.5.** Collaborate, and exchange information with other local, state, and federal agencies and with utility service providers in activities related to terrorism prevention and response.
- **Goal PFS-3.** Ensure a resilient supply of fresh, safe water to serve existing and future needs of the city.
 - **Policy PFS-P3.3.** Require new development to document that water supply capacity, quality, and infrastructure are in place prior to approval of new development.

In addition to the goals, policies, and actions listed here, see Chapter 4.17, *Wildfire*, of this Draft EIR, for a complete list of goals, policies, and actions that would minimize risk of wildfire, thereby reducing demand on LBFD fire services.

The proposed project also includes the proposed Annexation Ordinance that, as described in detail in Chapter 3, *Project Description*, of this Draft EIR, states the application eligibility criteria and the findings necessary for approval. To be eligible for annexation, a property must be contiguous with existing city limits, within the UGB, and at least 75 percent within the SOI. The annexation must be consistent with the policies of the City's general plan and all appropriate City development standards and must be processed under an application for a specific plan funded fully by the applicant that includes zoning for the subject area and that may also include a development agreement. In addition, the City must make the finding that adequate city utilities and public safety services are able to be provided, and the new development must fully fund construction of all improvements needed both on- and off-site to mitigate its impacts on public safety services, utility and transportation infrastructure, and parks, recreation, and educational facilities. These provisions of the proposed Annexation Ordinance would ensure that new development anticipates and addresses potential impacts resulting from the increased need for fire service.

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Additionally, potential future development that may occur due to implementation of the proposed General Plan would be required to comply with Title 24 of the CCR and the City's Fire Prevention Code (LBMC Title 4, Chapter 3) as outlined in Section 4.14.1.1, *Environmental Setting*. The Fire Protection Code regulates, among other topics, hazardous material handling, emergency access, and fire protection systems including automatic sprinkler system, fire extinguishers, and fire alarms. The City reviews plans and conducts construction inspections to ensure that new development complies with existing building and fire code requirements. Compliance with the State's Title 24 and the City's Fire Prevention Code would ensure any new development proposed in the EIR Study Area meets the most current building and fire codes, thereby increasing safety of the buildings, and reducing the likelihood of a fire emergency, subsequently reducing demand on LBFD fire services. In addition, new development is required to pay the City's impact fees that are adopted at the time of future project approval for new residential, retail, office, institutional, and industrial development. Current fees at the time of this Draft EIR are listed in Table 4.14-1, *City of Los Banos 2021 Adjusted Development Impact Fees*.

While the proposed project would increase demand on fire protection services, growth would most likely occur incrementally over the lifetime of the project, and it would be unlikely that the magnitude of increased demands as a result of the full buildout potential of the proposed project would be placed on facilities within the immediate timeframe or all at once. Individual project plan review by the LBFD, payment of development impact fees, consistency with the above policies, and compliance with the regulations described under Section 4.14.1.1, *Environmental Setting*, would ensure that the LBFD is involved as future development is allowed under the proposed project. Furthermore, future construction of new fire stations would be subject to separate project-level environmental review pursuant to CEQA, as required, to identify potential environmental impacts and mitigation measures as needed, and would also be subject to the mitigation measures contained throughout this Draft EIR to reduce potential environmental impacts. Compliance with policies of the proposed project, existing regulations including payment of development impact fees, and mitigation measures proposed throughout this EIR would ensure that impacts on fire protection facilities would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

PS-2	Implementation of the proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in a cumulative fire protection services impact.
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As discussed in Chapter 4, *Environmental Analysis*, this EIR takes into account 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 LBFD. As described in Section 4.14.1.1, *Environmental Setting*, the LBFD participates in the statewide Master Mutual Aid Plan and provides mutual aid for fire, rescue, and EMS to other local agencies in Merced County. As described in impact discussion PS-1, the LBFD has identified the need for additional fire stations to adequately serve future growth in the EIR Study Area, but no funding or plans are currently in place for the new stations. As the LBFD requires new equipment or staffing, the funds for such improvements would be provided through required payment of developer impact fees, the annual budget

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process, and would rely on the General Fund. Other funding opportunities, such as State and federal grants, may also be available.

Compliance with State and local regulations described under Section 4.14.1.1, *Environmental Setting*, and the proposed General Plan goals, policies, and actions listed in impact discussion PS-1, would ensure that fire protection services continue to adequately serve the EIR Study Area. Likewise, the Merced County General Plan EIR concluded that while fire protection facilities would be constructed over the lifetime of the 2030 Merced County General Plan, their applicable General Plan policies would minimize the number of these facilities necessary to maintain adequate levels of service as well as reduce environmental effects coupled with subsequent site-specific environmental review of future facilities.¹⁵ Similar to growth in the County, potential future development that may occur within and adjacent to the EIR Study Area would occur incrementally over the General Plan's 20-year buildout horizon, and therefore is not anticipated to substantially increase the population, thereby reducing the ability for fire districts and departments within the county to adequately serve residents. 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 in both the city and the unincorporated Merced County service area, the proposed project would not result in a cumulatively considerable impact to fire protection services and cumulative impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

4.14.2 POLICE SERVICES

4.14.2.1 ENVIRONMENTAL SETTING

This section describes regulations, resources, facilities, equipment, response times, and budget for police protection services. Information was provided through correspondence between PlaceWorks and Police Chief Gary Brizzee in February 2022.

Regulatory Framework

Los Banos Municipal Code

The LBMC includes various directives to minimize adverse impacts resulting from unsafe conditions and criminal behavior. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions of the LBMC related to police services are included in Title 2, *Administration*, Title 3, *Finance*, Title 4, *Public Safety*, Title 8, *Building Regulations*, and Title 9, *Planning and Zoning*, as follows:

- **Chapter 3, *Officers and Employees*.** This chapter establishes a Department of Public Safety for the City of Los Banos. The Department of Public Safety shall be responsible for the administration and provision of public safety services which shall include police protection, fire protection, and other related public safety services.

¹⁵ Merced County, November 2012, 2030 Merced County General Plan Draft PEIR, page 17-21.

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- **Section 2-3.203, *Department of Public Safety***, establishes the Police Services Division.
- **Section 2-3.204, *Police Services Division***, establishes the roles and responsibilities of the Police Services Division including the position of Chief of Police Services, who is responsible for management, administration, and provision of the Fire Services Division and Animal Control.
- **Chapter 12.1, *Los Banos Police, Fire, Public Safety/911 Special Transactions (Sales) and Use Tax***. This chapter is adopted for the special purpose of funding additional public safety personnel, supplies and services, capital outlay items, equipment, facilities and technology improvements over the term of the tax imposed under this chapter and paying for all incidental costs of operating this special transactions (sales) and use tax program, including administration and collections costs reimbursable to the State Board of Equalization, with any unused revenue committed to police and firefighting equipment and services.
- **Title 4, *Public Safety***, which, among other regulations, grants emergency authority of police and fire to direct traffic, and code enforcement (e.g., apprehension and prosecution of those who commit vandalism, etc.).
- **Chapter 1, *Building Codes***. This chapter includes Section 8-1.01, *Adoption of the California Building Code 2019 Edition*, which adopts the CBC in its entirety, subject, however, to the amendments, additions, and deletions set forth in this chapter. The purpose of the CBC is to prescribe regulations governing the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of all buildings and structures within the city. The CBC includes the establishment of lighting for safety and orientation.
- **Chapter 2, Subdivisions, Article 6, Improvements**. This chapter includes Section 9-2.608, *Police Development Impact Fees*, which deems it necessary to establish a fee for police facilities to serve proposed development in the city.

Existing Conditions

The Los Banos Police Department (LBDP) operates out of one main headquarters downtown. The LBDP is responsible for providing 24-hour uniformed law enforcement patrol services. The Merced County Sheriff's Department is responsible in providing law enforcement services to the unincorporated area surrounding Los Banos. Merced County has an operating sub-police station adjacent to the Los Banos Police Station, responsible for serving the City of Gustine and unincorporated communities of Santa Nella, Volta, Santa Rita Park, and South Dos Palos.¹⁶ See Figure 4.14-1, *Fire and Police Stations*.

Staffing and Equipment

The current LBDP headquarters is at 945 5th Street. LBDP currently employs 44 sworn police officers (though can currently employ up to 48 staff). Under the Federal Bureau of Investigation (FBI), the Western

¹⁶ Merced County, Sheriff Office Locations, 2022, <https://www.co.merced.ca.us/358/Department-Locations>, accessed February 25, 2022.

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U.S. average staffing ratio is 1.5 sworn officers to 1,000 residents. Currently, Los Banos is below the federal average, with a ratio of approximately 1.1 officers per 1,000 residents.¹⁷

The LBPDP is in the construction phase of a new police department building with an anticipated move-in date of October 2023 at 1111 G Street. See Figure 4.14-1, *Fire and Police Stations*.

The LBPDP is divided into several divisions: Investigations, Communications, Code Enforcement, and Patrol.¹⁸

- **Investigations Division:** The Investigations Division responds to crimes of violence and missing person investigations as well as property crimes and fraud cases. This Division is comprised of a Detective Sergeant and three Detectives, as well as a Gang Unit comprised of a gang Sergeant and Gang Officer that addresses gang activity within the city.
- **Patrol Division:** The Patrol Division makes up the bulk of the LBPDP and is comprised of four Sergeants and 18 Patrol Officers. The Patrol Division responds to calls for service, provides traffic enforcement, collision investigations, and proactive patrol, and leads preliminary criminal investigations.
- **Code Enforcement Division:** The Code Enforcement Division includes Animal Control Services and Community Preservation sections. Animal Control Services staff are responsible for the operations of the Animal Shelter and a Code Enforcement Officer responds to animal-related calls for service. The Community Preservation section is comprised of an Administrative Clerk, three Code Enforcement Officers, and a grant-funded contract employee, and focuses on maintaining a safe and desirable living and working environment within the city through code enforcement.
- **Communications Division:** The Communications Division is responsible for dispatching emergency and non-emergency calls 24 hours a day, for both police and fire units. This team consists of a Dispatch Supervisor and nine Public Safety Dispatchers.

Funding

During fiscal year 2021-2022, Los Banos Police General Fund was \$10,412,468, which represents 48 percent of the City's General Fund Expenditures. The LBPDP seeks funding from the City's General Fund, and in 2002, the City instituted the CFD, to collect special taxes to fund public protection services. Measure P is one of the tax measures passed in 2004, providing 0.5 percent sales tax and is split equally into two funds for police and fire services. Measure H is another tax measure, passed in 2018 as a general sales tax, providing 0.5 percent sales tax for public safety and recreation programs. The tax increases each year based on the Consumer Price Index (CPI). As the city keeps growing, it is expected the city will begin to need remote neighborhood police stations.

¹⁷ Brizzee, Gary. Police Chief, Los Banos Police Department. Personal communication with PlaceWorks, February 8, 2022.

¹⁸ Los Banos Police Department, 2021. Year in Review 2020. <https://losbanos.org/wp-content/uploads/2013/09/2020-Year-in-Review.pdf>, accessed March 15, 2022.

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Response Times and Call Volumes

In 2021, the LBPd responded to 19,126 911 calls and 63,554 total incidents. The LBPd has indicated that it does not have an established response time target.¹⁹

4.14.2.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in a significant impact to police services if it would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities, need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.
2. In combination with past, present, and reasonably foreseeable projects, result in a cumulative police services impact.

4.14.2.3 IMPACT DISCUSSION

PS-3	Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities, need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.
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New development in the City and proposed SOI would be served by the LBPd. A significant impact would result if increased demand in the city limits and SOI would require the construction of new facilities or the expansion of existing facilities in order for the LBPd to adequately serve the City and SOI, the construction or operation of which would cause significant environmental impacts.

As described in Section 4.14.2.1, *Environmental Setting*, the LBPd does not have staffing to reach the recommended FBI standard, and correspondence with the LBPd indicates that current staffing is inadequate. Increased population and demand on LBPd resources would exacerbate this. However, while staffing would need to increase both to meet desired levels of service and proportionally as population grows, the new police facility that is currently being constructed is intended to adequately serve the LBPd through approximately 50 years of growth, including that of the proposed project. The LBPd has indicated that facility space for the animal control facility and range facility (used for training) would still need to be expanded to meet long-term future needs.²⁰

The General Plan 2042 Land Use (LU) Element, Safety and Noise (S) Element, and Public Facilities and Services (PFS) Element contain goals, policies, and actions that require local planning and development

¹⁹ Brizzee, Gary. Police Chief, Los Banos Police Department. Personal communication with PlaceWorks, February 8, 2022.

²⁰ Brizzee, Gary. Police Chief, Los Banos Police Department. Personal communication with PlaceWorks, February 8, 2022.

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decisions to consider and mitigate impacts that potential future development could have on police service facilities. The goals, policies, and actions listed in impact discussion PS-1 to minimize impacts to fire protection services, would also serve to reduce impacts to LBPd facilities and services in the EIR Study Area. Specifically, Goal LU-1 is supported by several policies aimed at providing for orderly, well-planned, and balanced development that includes ensuring that adequate infrastructure and public services are available prior to approval of potential future development. Goal LU-2 is supported by policies and actions that also requires new development to include space for police services. Goal LU-3 includes requirements for future annexation, which requires that adequate police services can be provided prior to annexation approval. Goal S-4 is supported through implementing Action S-A4.1, which requires the City to routinely assess police staffing levels as the city grows. Additionally, the following goals, policies, and actions would also serve to reduce impacts to LBPd facilities and services in the EIR Study Area.

- **Goal S-5.** Maintain and enhance the City's capacity for law enforcement.
 - **Policy S-P5.1.** Promote crime prevention strategies and provide a high level of response to incidents. Reduce crime in Los Banos through a comprehensive strategy that includes rapid response to calls and regular patrols in neighborhoods with above-average crime rates.
 - **Action S-A5.1.** Support public education programs involving crime prevention and safety issues.
 - **Action S-A5.2.** Maintain mutual aid agreements with Merced County, neighboring law enforcement agencies, and the California Highway Patrol.

As noted previously, the proposed project also includes the proposed Annexation Ordinance that establishes the application eligibility criteria and the findings necessary for City support of the annexation request. To be eligible for annexation, a property must be contiguous with existing city limits, within the UGB, and at least 75 percent within the SOI. The annexation must be consistent with the policies of the City's General Plan and all appropriate City development standards. In addition, the City must make the finding that adequate public safety services are able to be provided, and the new development must fully fund construction of all improvements needed both on- and off-site to mitigate its impacts on public safety services, utility and transportation infrastructure, and parks, recreation, and educational facilities. These provisions of the proposed Annexation Ordinance would ensure that new development anticipates and addresses potential impacts resulting from the increased need for police service.

In addition to the above components of the proposed project, potential future development that may occur due to implementation of the proposed General Plan would be required to comply with City's Building Code (LBMC, Title 8, Chapter 1) and pay their fair share of the cost associated with expanded police services and facilities in accordance with payment of development impact fees as outlined in Section 4.14.2.1, *Environmental Setting*. The payment of fees would be based on the fees that are adopted at the time of future project approval for new residential, retail, office, institutional, and industrial development. Current fees at the time of this Draft EIR are listed in Table 4.14-1, *City of Los Banos 2021 Adjusted Development Impact Fees*.

Similar to impact discussion PS-1, while the proposed project would increase demand on fire protection services, growth would most likely occur incrementally over the lifetime of the project, and it would be unlikely that the magnitude of increased demands as a result of the full buildout potential of the proposed project would be placed on facilities within the immediate timeframe or all at once. Payment of

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police development impact fees, consistency with the above goals, policies, and actions and compliance with the regulations described under Section 4.14.2.1, *Environmental Setting*, would ensure that the LBPD is involved as future development is allowed under the proposed project. Furthermore, future construction of new police stations would be subject to separate project-level environmental review pursuant to CEQA, as required, to identify potential environmental impacts and mitigation measures as needed and would also be subject to the mitigation measures contained throughout this EIR to reduce potential environmental impacts. Compliance with policies of the proposed project, existing regulations including payment of development impact fees, and mitigation measures proposed throughout this EIR would ensure that impacts on police service facilities would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

PS-4	Implementation of the proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in a cumulative police services impact.
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As discussed in Chapter 4, *Environmental Analysis*, this EIR takes into account 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 police, this would be the service area of the LBPD. As described under impact discussion PS-3, the proposed project encourages collaboration with surrounding emergency service providers. The proposed project includes goals, policies, and actions, listed in impact discussion PS-3, for assessing staffing levels, facility, and equipment needs of police and fire services as the city grows; maintaining mutual aid agreements with Merced County, neighboring law enforcement agencies, and the California Highway Patrol; coordinating regular emergency drills with City and County emergency service providers; and collaborating with other local, State, and federal agencies and with utility service providers in activities related to terrorism prevention and response. Compliance with State and local regulations described under Section 4.14.2.1, *Environmental Setting*, and the proposed General Plan goals, policies, and actions listed in impact discussions PS-1 and PS-3, would ensure that police services continue to adequately serve the EIR Study Area. Likewise, Merced County General Plan EIR concluded that while police facilities would be constructed over the lifetime of the 2030 Merced County General Plan, their applicable General Plan policies would minimize the number of these facilities necessary to maintain adequate levels of service as well as reduce environmental effects coupled with subsequent site-specific environmental review of future facilities.²¹ Similar to growth in the County, potential future development that may occur within and adjacent to the EIR Study Area would occur incrementally over the General Plan's 20-year buildout horizon, and therefore is not anticipated to substantially increase the population, thereby reducing the ability for the police/sheriff departments within the county to adequately serve residents. 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 police services. With adequate planning in place in both the city and the unincorporated Merced County service area, the proposed project would

²¹ Merced County, November 2012, 2030 Merced County General Plan Draft PEIR, page 17-26.

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not result in a cumulatively considerable impact to police services and cumulative impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

4.14.3 SCHOOLS

4.14.3.1 ENVIRONMENTAL SETTING

This section describes regulations, resources, facilities, capacity, and budget for public school services in Los Banos. The analysis in this section is based on the *Los Banos Unified School District Long Range Facility Master Plan* prepared on behalf of the Los Banos Unified School District (LBUSD) in October 2019.²² Information was also provided through correspondence between PlaceWorks and Dr. Mark Marshall, Superintendent, LBUSD, in February 2022.

Regulatory Framework

State Regulations

Senate Bill 50

Senate Bill (SB) 50 (funded by Proposition 1A, approved in 1998) limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provides instead for a standardized developer fee. SB 50 generally provides for a 50/50 State and local school facilities funding match. SB 50 also provides for three levels of statutory impact fees. In setting the fees, school districts must prepare nexus studies to demonstrate a reasonable connection between new development and the need for school improvements. The fees may only be used to finance the construction or modernization of school facilities. The application level depends on whether State funding is available, whether the school district is eligible for State funding and whether the school district meets certain additional criteria involving bonding capacity, year-round school, and the percentage of moveable classrooms in use.

California Government Code, Section 65995(b), and Education Code Section 17620

SB 50 amended California Government Code Section 65995, which contains limitations on Education Code Section 17620, the statute that authorizes school districts to assess development fees within school district boundaries. Government Code Section 65995(b)(3) requires the maximum square footage assessment for development to be increased every two years, according to inflation adjustments. According to California Government Code Section 65995(3)(h), the payment of statutory fees is “deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization...on the provision of adequate school facilities.” The school district is

²² Note, the *Los Banos Unified School District Long Range Facility Master Plan* includes confidential school information and is not available for public review at the request of the Los Banos Unified School District.

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responsible for implementing the specific methods for mitigating school impacts under the Government Code.

Mitigation Fee Act (California Government Code 66000-66008)

Enacted as AB 1600, the Mitigation Fee Act requires a local agency establishing, increasing, or imposing an impact fee as a condition of development to identify the purpose of the fee and the use to which the fee is to be put.²³ The agency must also demonstrate a reasonable relationship between the fee and the purpose for which it is charged, and between the fee and the type of development project on which it is to be levied. This Act became enforceable on January 1, 1989.

Local Regulations

Los Banos Municipal Code

The LBMC includes various directives to ensure public schools are adequate to serve school-age children in Los Banos. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions related to public schools are included in Title 9, *Planning and Zoning*, as follows:

- **Chapter 2, *Subdivisions*. Article 14, *School Development Fees***, of this chapter establishes the need and procedures for the payment of school development fees in Los Banos. In addition to the two sections listed below, Article 14 also includes project size requirements for when fees are required, exemptions to the Code, and how fees are to be used, amongst others.
 - **Section 9-2.1409, *Findings by the City for development approval***, requires that one of the two findings be made prior to the approval of a residential project in an area where schools are overcrowded.
 - a) A provision has been made for the payment of fees, dedication of land, or both, or some other provision has been agreed upon by the applicant for a residential development in the school district to mitigate the conditions of overcrowding within such attendance area; or
 - b) That there are specific overriding fiscal, economic, social, or environmental factors which, in the judgment of the decision-making body, would benefit the City, thereby justifying the approval of a residential development otherwise subject to the provisions of this chapter without requiring the payment of fees, or the dedication of land, or other alternate provisions required by this chapter.
 - **Section 9-2.1409, *Payment of Fees: Dedication of Land***, provides the procedures and requirements for payment of fees to the Los Banos Unified School District where it has been determined that overcrowding exists.

²³ California Legislative Information, California Law, Code Section Group, Government Code Sections 66000-66008, https://leginfo.ca.gov/faces/codes_displayText.xhtml?lawCode=GOV&division=1.&title=7.&part=&chapter=5.&article= accessed on April 8, 2020.

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Existing Conditions

The City of Los Banos is served by LBUSD, which has nine elementary schools, two junior high schools, two high schools, one continuation high school, as well as an additional adult education program, ensuring that it meets the entire community's needs. The LBUSD serves over 10,000 students across the entire City of Los Banos. Table 4.14-2, *Los Banos Unified School District Student Enrollment and School Capacity*, shows 2020-2021 school year enrollment numbers for the LBUSD schools. Figure 4.14-2, *Public Schools in the Los Banos Unified School District*, shows the location of these schools.

TABLE 4.14-2 LOS BANOS UNIFIED SCHOOL DISTRICT STUDENT ENROLLMENT AND SCHOOL CAPACITY

Map No.	Schools	Student Enrollment ^a	School Capacity ^b	Student Enrollment of School Capacity
1	Charleston Elementary School (K-6)	379	428	89%
2	Grasslands Elementary School (K-6)	774	836	93%
3	Henry Miller Elementary School (K-6)	717	836	86%
4	Lorena Falasco Elementary School (K-6)	826	820	101%
5	Los Banos Elementary School (K-6)	417	862	48%
6	Mercy Springs Elementary (K-6)	613	804	76%
7	R.M. Miano Elementary (K-6)	752	888	85%
8	Volta Elementary School (K-6)	399	575	69%
9	Westside Union Elementary School (K-6)	590	730	81%
Total Elementary School Students		5,467	6,779	81%
10	Creekside Junior High School (7-8 th)	846	916	92%
11	Los Banos Junior High School (7-8 th)	935	1,045	89%
Total Junior High School Students		1,781	1,961	91%
12	Los Banos High School (9-12 th)	1,530	2,101	73%
13	Pacheco High School (9-12 th)	1,782	2,013	89%
Total High School Students		3,312	4,114	81%
14	Crossroads Alternative Education Center (8-12 th)	90	--	--
15	San Luis High (Continuation) School (11-12 th)	87	192	45%
Total Alternative School Students		177	192	45%

Notes:

a. Enrollment numbers have been updated from the 2019 LBUSD Long Range Facility Master Plan to reflect more recent 2020-2021 school year enrollment numbers from the California Department of Education (CDE). It should be noted that this table does not list students that the CDE lists under District Office (16), Nonpublic, Nonsectarian Schools (1), and Transitional Kindergarten Center (104) for the 2020-2021 LBUSD school year.

b. School capacity is based on LBUSD loading calculations, and not State loading calculations, which may be higher or lower depending on the school.

1. The Crossroads Alternative Education Center leases spaces and was not included in the facility calculation.

2. Grasslands Elementary School was developed after the study was created, and capacity projections were included for a "new elementary school on "B" Street (2020-2021). 2021-2022 data indicates an attendance of 774 students for this K-6 school.

3. The Pacheco High School Addition (not listed) opens for the 2022-2023 School year, with an estimated District loading capacity of 384 students.

Sources: Los Banos Unified School District, *Los Banos Unified School District Long Range Facility Master Plan*, 2019, prepared by Erica Hall & Associates (EH&A), page 28; California Department of Education, 2021, Data Quest: 2020-21 Enrollment by Grade, Los Banos Unified Report, <https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=2465755&aggllevel=district&year=2020-21>, accessed March 30, 2022.

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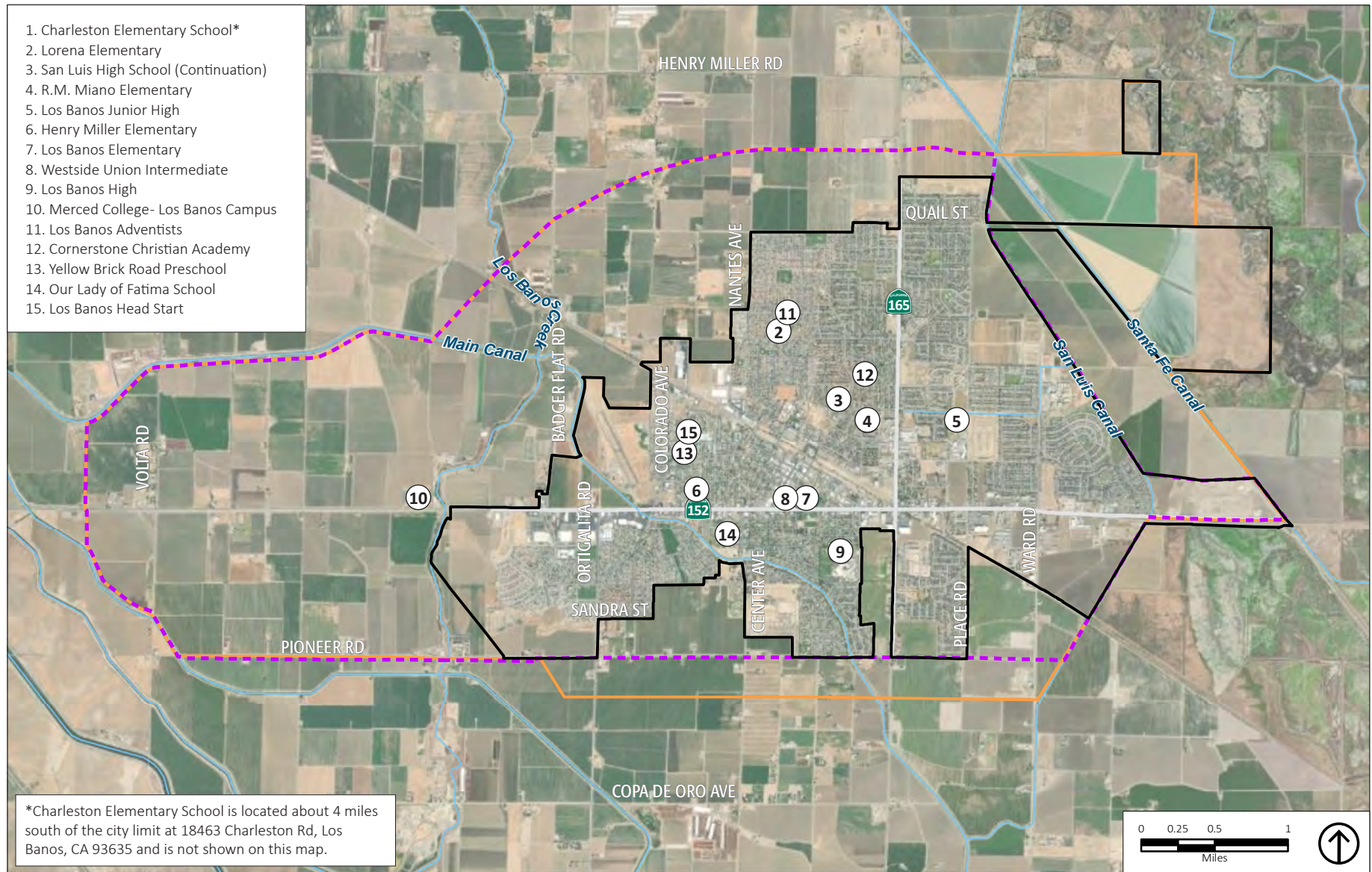


Figure 4.14-2
Public Schools in the Los Banos Unified School District

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Lorena Falasco Elementary School was above current school capacity in the 2020-2021 school year. Combined, junior high schools were within 10 percent of meeting their student enrollment to school capacity maximum threshold, and elementary and high schools were within 20 percent of meeting their student enrollment to school capacity maximum threshold. With the recent development of Grasslands Elementary, the development of this new school alleviated elementary school capacity burden throughout the LBUSD. As a result, other schools in the LBUSD had additional school capacity for existing students.²⁴ However, current elementary schools are still crowded. Correspondence with LBUSD indicated that the LBUSD still needs two new elementary schools.²⁵ Afterwards, future LBUSD plans include the development of additional middle and high schools. Locations or development plans for future schools are not yet determined.

Recent annual enrollment for the entire LBUSD is shown in Table 4.14-3, *Los Banos Unified School District Recent Enrollment Data*. Enrollment has slightly increased since 2014, though not consistently with each new school year.

TABLE 4.14-3 LOS BANOS UNIFIED SCHOOL DISTRICT RECENT ENROLLMENT DATA

School Year	Number of Students
2014-2015	10,260
2015-2016	10,520
2016-2017	10,785
2017-2018	10,863
2018-2019	11,075
2019-2020	11,084
2020-2021	10,858

Source: California Department of Education, 2022. DataQuest Enrollment Report: Enrollment Multi-Year Summary by Grade, Los Banos Unified School District.

In terms of staffing, LBUSD has enough existing staff and facility levels to adequately meet current demands for school services.²⁶

The LBUSD received a total funding of \$144,059,003 for the 2019-2020 year. LBUSD funding primarily comes from the State Local Control Funding Formula (LCFF). Approximately 84 percent of the school district's funding is from LCFF. For 2019-2020, the LBUSD averaged \$13,732 per student for a population of 10,490 – an expected expenditure of \$144,048,680. For reference, the statewide average spending per

²⁴ Marshall, Dr. Mark. Superintendent, Los Banos Unified School District. Personal communication with PlaceWorks, February 10, 2022.

²⁵ Marshall, Dr. Mark. Superintendent, Los Banos Unified School District. Personal communication with PlaceWorks, February 10, 2022.

²⁶ Marshall, Dr. Mark. Superintendent, Los Banos Unified School District. Personal communication with PlaceWorks, February 10, 2022.

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student among Unified School Districts in 2019-2020 was \$13,877. Therefore, in 2019-2020, the per-student spending for the LBUSD was slightly below the statewide average.²⁷

4.14.3.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in a significant schools impact if it would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.
2. In combination with past, present, and reasonably foreseeable projects, result in a cumulative schools impact.

4.14.3.3 IMPACT DISCUSSION

PS-5	Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.
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A significant impact would result if, in order for the LBUSD to adequately serve residents in the EIR Study Area, increased school enrollment would require the construction of new facilities or the expansion of existing schools, the construction or operation of which would cause significant environmental impacts.

The 2019 LBUSD Long Range Facility Master Plan uses student generation rates to calculate enrollment forecasts of 0.37 elementary students per new residence, 0.13 junior high school students per new residence, and 0.06 high school students per new residence.²⁸ Applying these numbers to the projected buildout of the proposed project, which is listed in Table 3-3, *Proposed 2042 Buildout Projections in the EIR Study Area*, in Chapter 3, *Project Description*, of this Draft EIR as including an additional 8,900 housing units, would result in an estimate of 4,984 students by the 2042 horizon year of the proposed project. This is comprised of an estimated 3,293 elementary school students, 1,157 junior high school students, and 534 high school students based on the student generation rates.²⁹ The 2019 LBUSD Long Range Facility Master Plan also noted that LBUSD projected enrollment to exceed 12,800 students (an increase of 1,942 students from the 2020-2021 school year) by the 2028-2029 school year.³⁰ The full projected

²⁷ Education Data Partnership, Los Banos Unified School District, 2019-2020, <http://www.ed-data.org/district/Merced/Los-Banos-Unified>, accessed February 23, 2022.

²⁸ Erica Hall & Associates, 2019. *Los Banos Unified School District Long Range Facility Master Plan*, page 13.

²⁹ $(8,900 \text{ housing units} \times 0.37 = 3,293 \text{ elementary school students}) + (8,900 \times 0.13 = 1,157 \text{ junior high school students}) + (8,900 \times 0.06 = 534 \text{ high school students}) = 4,984 \text{ total students by 2042.}$

³⁰ Erica Hall & Associates, 2019. *Los Banos Unified School District Long Range Facility Master Plan*, page 15.

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increase in students to the LBUSD would be gradual over the next 20 years as more housing units are added to the LBUSD service area.

Based on Table 4.14-2, *Los Banos Unified School District Student Enrollment and School Capacity*, LBUSD currently has capacity for an additional 1,312 elementary school students, 180 junior high school students, and 802 high school students. The proposed project would result in more students than the current listed capacity for LBUSD schools. To accommodate new students, LBUSD would need to expand existing facilities. Correspondence with the LBUSD as part of the development of this Draft EIR indicated that current facilities at the elementary school level are crowded, and that LBUSD needs two additional elementary schools, after which it plans to expand junior high and high schools.³¹ The 2019 LBUSD Long Range Facility Master Plan concluded that a review of junior high schools, especially Creekside Junior High School, is warranted to plan for projected exceeded capacity. The 2019 LBUSD Long Range Facility Master Plan also noted a proposed new building to be added on the Pacheco High School campus.³²

According to correspondence with the LBUSD, the LBUSD relies on mitigation agreements with developers to pay school impact fees as specific projects are constructed; when the City proposes new development such as a new subdivision, the LBUSD looks at whether there is capacity in schools and whether developers are paying an appropriate share.³³ The LBUSD would continue to collect development impact fees throughout implementation of the proposed General Plan, meaning potential future development would incrementally pay for any needed facility upgrades and expansions, which, pursuant to SB 50, would mitigate the impacts from the proposed General Plan. Additionally, LBMC Article 14, School Development Fees, prohibits the approval of residential development in areas where schools are overcrowded without first demonstrating the overcrowded conditions can be mitigated unless other specific overriding fiscal, economic, social, or environmental factors can adequately demonstrate why no such mitigation is warranted. Furthermore, future construction of new schools would be subject to separate project-level environmental review pursuant to CEQA, as required, to identify potential environmental impacts and mitigation measures as needed, and would also be subject to the mitigation measures contained throughout this Draft EIR to reduce potential environmental impacts.

Moreover, the General Plan 2042 Land Use (LU) Element and Public Facilities and Services (PFS) Element contain goals, policies, and actions that require local planning and development decisions to consider and mitigate impacts that potential future development could have on school facilities. The goals, policies, and actions listed in impact discussion PS-1 to minimize impacts to fire protection services, would also serve to reduce impacts to LBUSD facilities in the EIR Study Area. Specifically, Goal LU-1 is supported by Policies LU-P1.5 and LU-P1.7 aimed at providing for orderly, well-planned, and balanced development that includes ensuring that adequate infrastructure and public services are available prior to approval of potential future development. Goal LU-3 includes requirements for future annexation, which requires that adequate mitigation for public services be provided prior to annexation approval. Additionally, the

³¹ Marshall, Dr. Mark. Superintendent, Los Banos Unified School District. Personal communication with PlaceWorks, February 10, 2022.

³² Erica Hall & Associates, 2019. *Los Banos Unified School District Long Range Facility Master Plan*, pages 29 and 30.

³³ Marshall, Dr. Mark. Superintendent, Los Banos Unified School District. Personal communication with PlaceWorks, February 10, 2022.

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following goals, policies, and actions would also serve to reduce impacts to LBUSD facilities and services in the EIR Study Area.

- **Goal LU-2.** Foster neighborhoods with exceptional amenities and design, broad-based opportunity, and a shared sense of identity.
 - **Policy LU-P2.12.** Ensure new neighborhoods are designed to incorporate appropriate public and community facilities, such as schools, childcare, community centers, parks, houses of worship, and/or libraries.
- **Goal PFS-1.** Help create jobs and improve job quality for existing and future Los Banos residents.
 - **Policy PFS-P1.1.** Ensure adequate elementary school sites are reserved in new subdivisions, consistent with the Land Use Diagram and State law.
 - **Policy PFS-P1.2.** Require that elementary schools be located close to residential neighborhoods, and away from major streets to avoid vehicular traffic and noise.
 - **Policy PFS-P1.3.** Maintain a close, collaborative relationship with Los Banos Unified School District on all matters of mutual interest.

As noted previously, the proposed project also includes the proposed Annexation Ordinance. Any annexation must be consistent with the policies of the City's General Plan and all appropriate City development standards. In addition, new development must fully fund construction of all improvements needed both on- and off-site to mitigate its impacts on educational facilities. Specific Plans for residential development must identify sites and funding for school facilities needed to meet the demand created by the proposed development. These provisions of the proposed Annexation Ordinance would ensure that new development anticipates and addresses potential impacts resulting from the increased need for schools in the EIR Study Area.

With the required payment of developer impact fees for new development pursuant to SB 50 and the implementation of the proposed General Plan goals, policies, and actions that support school facilities in the EIR Study Area, impacts to the LBUSD would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than Significant.

PS-6	Implementation of the proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in a cumulative schools impact.
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As discussed in Chapter 4, *Environmental Analysis*, this EIR takes into account 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 schools, this would be the service area of the LBUSD. As described in impact discussion PS-5, the proposed project would contribute to increased population that is served by the LBUSD, and would require expansion of LBUSD schools. Through proposed policies, developer mitigation agreements, and school impact fees, the proposed project would not result in a significant

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impact to schools. Future development that would affect the LBUSD such as that within the city limit and proposed SOI would be subject to school impact fees. Under Section 65995 of the California Government Code, the payment of impact fees is deemed to fully mitigate the impacts of new development on school facilities. Therefore, the proposed project would not result in a cumulatively considerable impact to school facilities and cumulative impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

4.14.4 LIBRARIES

4.14.4.1 ENVIRONMENTAL SETTING

This section describes regulations, resources, facilities, capacity, and budget for public school services in Los Banos. The analysis in this section is based on the *Merced County Library Countywide Strategic Plan 2021-2024*, which was prepared by the Merced County Library Strategy Planning Team.

Regulatory Framework

State Regulations

The Mello-Roos Communities Facilities Act of 1982

The Mello-Roos Community Facilities Act, Government Code Section 53311 et seq., provides an alternative method of financing certain public capital facilities and services through special taxes. This State law empowers local agencies to establish CFDs to levy special taxes for facilities such as libraries.

Existing Conditions

The Merced County Public Library System governs and administers twelve community libraries, including in the incorporated city of Los Banos. There is one library in the study area: Los Banos Branch of the Merced County Library.³⁴ The library is at the center of the city at the Pacheco Park. The library is funded through the general library fund and through a nonprofit organization, Friends of the Los Banos Library. Single residents pay a \$10 per year fee and families pay a \$15 per year fee to be a library member. The nonprofit has been able to paint the inside of the library, display local artwork, and provide funding for extra hours for library employees as well as provide various reading programs and magazine subscriptions the community.³⁵

In addition to Los Banos, the Merced County Library includes branches in the following cities and communities Dos Palos, Santa Nella, Gustine, Hilmar, Delhi, Livingston, Winton, Atwater, Merced, Le Grand, and Snelling. It also offers “bookmobile” locations in Ballico, Cressey, Stevinson, West Merced,

³⁴ County of Merced, Merced County Libraries Library Location and Hours, 2022, <https://www.co.merced.ca.us/1301/Library-Locations-Hours>, accessed February 25, 2022.

³⁵ Friends of the Los Banos Library, Friends of the Los Banos Public Library Homepage, 2022, <http://www.friendsofthelosbanoslibrary.org/index.html>, accessed February 25, 2022.

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Planada, and South Dos Palos. The bookmobile is a mobile library intended to bring library services to areas without immediate access to a library branch. The bookmobile offers books, multimedia, and internet access, with three computers available for public use and roughly 2,500 items to choose from.³⁶

The Merced County Library is part of the San Joaquin Valley Library System, which connects all member library collections through an online catalog for easy access to materials held at any of the member libraries. There are currently 11 member libraries, including the Merced County Library, located throughout the San Joaquin Valley. If an item is not available through the San Joaquin Valley Library System, Merced County offers an interlibrary loan service, where items can be borrowed from participating libraries throughout California and the United States for a fee assessed by the lending library. Generally, fees for interlibrary loans are \$10 per request for an item in State and \$15 per request for an item out of State.³⁷

The Merced County Library adopted a *2021-2024 Countywide Strategic Plan*, which was prepared by the Merced County Library Strategy Planning Team. Within the document contains the County's values, goals, and action items for the County Library system until 2024. Actions items include publishing Annual Strategic Plan Reports through 2024 to evaluate library services and needs.³⁸ According to the 2021-2022 adopted budget, 24 full-time employees (equivalent) were approved to work for the Los Banos Public Library.³⁹

4.14.4.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in significant impact to libraries if it would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.
2. In combination with past, present, and reasonably foreseeable projects, result in a cumulative libraries impact.

³⁶ Merced County Library, 2022, Bookmobile. <https://www.countyofmerced.com/2125/Bookmobile>, accessed March 16, 2022.

³⁷ Merced County Library, 2022, Interlibrary Loan (ILL). <https://www.countyofmerced.com/770/Interlibrary-Loan-ILL>, accessed March 16, 2022.

³⁸ Merced County Library Strategy Planning Team, 2021. Strategic Plan 2021-2024.

³⁹ Merced County, Final Budget Fiscal Year 2021-2022, <https://www.co.merced.ca.us/ArchiveCenter/ViewFile/Item/887>, page 83A, accessed February 25, 2022.

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4.14.4.3 IMPACT DISCUSSION

PS-7	The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.
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A significant impact would result if, in order for the library system to adequately serve the city, increased demand in the city limit and proposed SOI would require the construction of new facilities or the expansion of existing library facilities, the construction or operation of which would cause significant environmental impacts. It is projected that by 2042, the horizon year of the proposed project, 8,900 new housing units would be developed, and the population would increase by 29,600 new residents. New residents would utilize library services, which could impact library facilities.

The General Plan 2042 Land Use (LU) Element and the Public Facilities and Services (PFS) Element contains goals, policies, and actions that require local planning and development decisions to consider and mitigate impacts that potential future development could have on library facilities. The goals, policies, and actions listed in impact discussion PS-1 to minimize impacts to fire protection services, would also serve to reduce impacts to library facilities in the EIR Study Area. Specifically, Goal LU-1 is supported by Policy LU-P1.7 aimed at providing for orderly, well-planned, and balanced development that includes ensuring that adequate infrastructure and public services are available prior to approval of potential future development. Goal LU-3 includes requirements for future annexation, which requires that adequate mitigation for public services be provided prior to annexation approval. Additionally, the following goals, policies, and actions would also serve to reduce impacts to library facilities and services in the EIR Study Area.

- **Goal PFS-2.** Provide public and cultural facilities that contribute to Los Banos' positive image, enhance community identity, and meet the civic and social needs of residents.
 - **Policy PFS-P2.3.** Require new development to pay its fair share of the costs of expanding library services to maintain current service levels.
 - **Policy PFS-P2.7.** Encourage internet providers to improve access to reliable, fast, affordable internet in Los Banos.
 - **Action PFS-A1.1.** Work with the Los Banos Branch of the Merced County Library to create either a new large library facility or several satellite branches to serve additional population in Los Banos.

Based on the increased projected buildout and population growth of Los Banos by 2042 under the proposed project, the Los Banos Branch of the Merced County Library would likely need to expand to accommodate potential new users. Future construction of new libraries would be subject to separate project-level environmental review pursuant to CEQA, as required, to identify potential environmental impacts and mitigation measures as needed, and would also be subject to the mitigation measures contained throughout this Draft EIR to reduce potential environmental impacts.

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Additionally, as described in Section 4.14.4.1, *Environmental Setting*, the Merced County Library participates in several inter-library exchange programs with the San Joaquin Valley Library System and nationally, and offers a mobile “bookmobile” at several locations throughout the County to expand access to library services. The availability of these resources helps the Los Banos Branch of the Merced County Library increase its available services and minimize impacts from the proposed project.

It is expected that new growth under the proposed project would most likely occur incrementally over the next 20 years and not all at once. The potential need for future library facility expansions would be assessed as development occurs. Policy PFS-P2.3 of the proposed project establishes a requirement that new development pay its fair share for expanding library services, and Action PFS-A1.1 requires working with the local branch of the Merced County Library to expand facilities as necessary. Adherence to these policy and action items, as well as mitigation measures for future development under the proposed project included throughout this EIR, would ensure that there is a *less-than-significant* impact relating to the provision of new or physically altered library facilities and no mitigation measures are required.

Significance Without Mitigation: Less than significant.

PS-8	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in a cumulative libraries impact.
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As discussed in Chapter 4, *Environmental Analysis*, this EIR takes into account growth from development under the proposed project within the City combined with the estimated growth in the service areas of each service provider. As described in Section 4.14.4.1, *Environmental Setting*, the Merced County Library has branches throughout Merced County, including the Los Banos branch, and is part of the San Joaquin Valley Library System, which connects all member library collections through an online catalog for easy access to materials held at any of the member libraries. New development in the EIR Study Area would be served by the Merced County Library from the existing library services throughout Merced County and in Los Banos, including online services.

As explained in the County’s 2012 General Plan Draft EIR, the County plans for future population growth within the unincorporated county that could result in substantial changes to existing library services, requiring the construction of new or physically altered library facilities. Similar to development in Los Banos, Merced County General Plan policies to minimize the number of new or expanded facilities necessary and to reduce or avoid environmental effects coupled with required site-specific environmental review would work to minimize environmental impacts to or from library facilities for Merced County. Similar growth in incorporated cities throughout the county would also be subject to their own local policies for ensuring a reduction of impacts to library facilities. For potential future development in Los Banos, compliance with the proposed General Plan goals, policies, and actions listed in impact discussions PS-1 and PS-7, would ensure that library services are adequate to serve the EIR Study Area. With adequate planning in place in both the city and the unincorporated Merced County service area, the proposed project would not result in a cumulatively considerable impact to library services and cumulative impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

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4.14.5 PARKS AND RECREATION

4.14.5.1 ENVIRONMENTAL SETTING

This section describes regulations, resources, facilities, and budget for parks and recreation in the EIR Study Area. The analysis in this section is based on the *City of Los Banos Parks Master Plan*, prepared on behalf of the Los Banos Parks and Recreation Division in February 2021. Information was also provided through correspondence between PlaceWorks and Joe Heim, Parks and Recreation Operations Manager in February 2022.

Regulatory Framework

State Regulations

The Quimby Act

The Quimby Act of 1975 authorizes cities and counties to pass ordinances requiring developers of residential projects to set aside land, donate conservation easements or pay fees for park improvements. The Quimby Act sets a standard park space to population ratio of up to 3 acres of park space per 1,000 persons. Cities with a ratio of higher than 3 acres per 1,000 persons can set a standard of up to 5 acres per 1,000 persons for new development. The calculation of a city's park space to population ratio is based on a comparison of the population count of the last federal census to the amount of city-owned parkland. A 1982 amendment (AB 1600) requires agencies to clearly show a reasonable relationship between the public need for a recreation facility or park land, and the type of development project upon which the fee is imposed.⁴⁰

Local Regulations

Los Banos Municipal Code

The LBMC includes various directives to minimize adverse impacts to parks and recreational facilities. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions of the LBMC related to park and recreational facilities are included in Title 5, *Public Welfare, Morals, and Conduct*, Title 9, *Planning and Zoning*, and Title 10, *Parks and Recreation*, as follows:

- **Title 9, *Planning and Zoning*, Chapter 2, *Subdivisions*.** Article 16, *Land for Parks and Recreation*, of this chapter sets regulations for residential subdivisions, including parks dedication and/or in-lieu fees.
 - **Section 9-2.1602, *Requirements*,** establishes the requirements to determine land requirements for dedication or in-lieu fee payment upon issuance of a building permit. As condition of approval of a final subdivision map, or upon issuance of a building permit, the subdivider shall dedicate land, pay a fee in lieu thereof, or both, at the option of the City, for the neighborhood and community park or recreational purposes at the time and according to the standards and formula

⁴⁰ State of California, 2022. California Legislative Information, Assembly Bill No. 1191.
https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201520160AB1191, accessed March 15, 2022.

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contained in Section 9-2.1603, *Park Acreage Standard*; Section 9-2.1603 sets the park acreage standard for Los Banos to be no less than five acres of property for each one thousand persons residing within city limits to be devoted to local park and recreational purposes.

- **Section 9-2.1614, Exemptions**, allows for subdivisions containing less than five parcels and not used for residential purposes to be exempt from paying fees or dedicating land for parks. The amount of dedicated land is determined by multiplying the average number of persons per unit and the park acreage standard of 5 acres of parkland for every 1,000 residents as allowed by the Quimby Act. The in-lieu fee would be determined based upon the fair market value of the land which would otherwise be required to be dedicated.

2021 Los Banos Parks Master Plan

The *Los Banos Parks Master Plan* (2021 Park Master Plan), finalized in February 2021, guides the Parks and Recreation Division, Parks and Recreation Commission, and City staff allocating resources for the next 15 years. The 2021 Park Master Plan was created using staff, community, demographic trends and includes critical information related to park success such as park standards, future policy direction, needs assessment, and any deficiencies within the current community related to parks.⁴¹ Section 9, Action Plan, of the 2021 Park Master Plan includes goals and policies to help the City maintain existing parks and increase the capacity of parkland in Los Banos to maintain the City's parkland per 1,000 residents goal. The 2021 Park Master Plan states that the City currently has approximately 6.3 acres of parkland per 1,000 residents and has a goal to provide 7 acres of developed parkland per 1,000 residents within city limits under the existing General Plan.⁴²

Existing Conditions

The City of Los Banos Parks and Recreation Division is the sole park service provider in the EIR Study Area. Other recreational service providers in the region include the County of Merced's Parks and Recreation with the nearest facility, Hagaman Park, in Stevinson, California, about 20 miles north; the California Department of Parks and Recreation with the nearest facility, Great Valley Grassland State Park (2,826 acres), also just outside of Stevinson, California; the California Department of Fish and Wildlife with the nearest facility, Volta Wildlife Area (3,800 acres), located about 10 miles to the northwest of Los Banos; and the United States Fish and Wildlife Service, with the nearest facility, San Luis National Wildlife Refuge (26,800 acres), about 20 miles to the north of Los Banos. The California Department of Parks and Recreation operate the San Luis Reservoir State Recreation Area about 15 miles west of Los Banos, this facility is noted for boating, board sailing, camping, picnicking, and most notably fishing. The City of Los Banos currently has a joint-use agreement between the LBUSD and the City for facility use. Additionally, public park and recreational services are supplemented by private facilities such as swim and racquet clubs.

⁴¹ City of Los Banos, Los Banos Park Master Plan, prepared by QK Associates, 2021, accessed on February 24, 2022

⁴² City of Los Banos, 2021. Parks Master Plan. Page 6-2.

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City Parks and Recreational Facilities

The City of Los Banos Public Works Department is responsible for overseeing the Parks and Recreation Division. The Parks and Recreation Division provides youth, adult, and senior services, as well as special programs, such as, sports leagues, summer camps, health and fitness classes, and senior activities. In recent years the City has been undergoing several maintenance procedures to upgrade playground equipment and improve the Urban Forestry Program.

As described in each park type definitions below, the City of Los Banos currently has 264.35 acres of developed public parks.⁴³ With the development of the 2021 Parks Master Plan, the City has updated some of their park type definitions, which include but is not limited to: Neighborhood Parks, Community Parks, and Specialty Parks. In addition, the 2021 Parks Master Plan added in a new park category as “Trails.” Some of these definitions, as outlined in the current General Plan, focused more on the acreage definition instead of function of the park type. The 2021 Parks Master Plan redefines some of these park types for more practical applications below:

1. **Pocket Park.** Pocket parks serve as a residential amenity to their immediate neighborhood and are generally located less than 0.25 miles from the furthest residence in the neighborhood. Larger pocket parks are typically between 0.5 to 1 acre in size. Pocket parks may include playgrounds, picnic tables and barbecues, benches, and shade and larger pocket parks may include basketball and/or volleyball facilities. There is currently a total of 9.34 acres designated as pocket park land.
2. **Neighborhood Park.** Neighborhood parks are intended to provide basic recreation facilities for child- and family- oriented activities and range from 1 to 10 acres and as large as 25 acres when attached to a storm drain. Storm drains allow for open play, sports, field games, and perimeter walking/jogging trails. There are 131.27 acres designated as neighborhood park land.
3. **Community Park.** Community parks are intended to serve the entirety of the City or multiple neighborhoods. The use of community parks usually is to address the needs of the community and can range from athletic, community-based recreation, and open space needs. Community parks service range can extend from one to three miles and typical acreage range from seven to 20 miles. Typical uses include tennis, courts, community centers, swimming pools or splash pads, sports fields, walking paths, and more. There are 75.9 acres designated as community parks.
4. **Specialty Park or Facility.** Specialty parks or facilities may include neighborhood or community park elements along with amenities that attract users from outside of the city. Specialty park or facility uses include, but are not limited to skate park, BMX track, dog park, or a park meant to honor fallen heroes. There are 11.35 acres of specialty parks or facilities in the city.
5. **Trails.** Trails are defined as linear paths usually along a canal or old railroad right of way or an easement allowing access to rail or canal trails. Trail easements vary in width up to 100 feet and are usually paved or decomposed granite surfaces between 8 and 10 feet in width. Some trails incorporate shade trees, bench seating, and trash containers. There are currently approximately 36.6 acres of Trails in the City.

⁴³ City of Los Banos, *Los Banos Park Master Plan*, prepared by QK Associates, 2021, page 8-9

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Parks and recreation facilities in Los Banos are shown in Figure 4.14-3, *Parks and Recreation Facilities*. As described in the 2021 Parks Master Plan, most areas within the city limit are within 0.5 miles of a park.

Service Standards

According to the 2021 Parks Master Plan, there are 264.35 acres of existing public parks. As described in Chapter 3, *Project Description*, of this Draft EIR, the current population for Los Banos is 42,900 residents. This results in a ratio of 6.2 acres per 1,000 residents.⁴⁴ This calculation includes right of ways, medians, and wall planters. Using only park acreage, the park-to-people ratio becomes 5.0 acres per 1,000 people.⁴⁵

While the 2021 Parks Master Plan recommends that the City maintain the 6.3 acres per 1,000 people ratio, this recommendation reflects the benefits of park access for the community but is not a required standard like the 5.0 acres per 1,000 population in LBMC Section 9-2.1603, *Park Acreage Standard*.

Staffing and Facilities

According to the Parks and Recreation Division, the primary existing deficiencies are specialty facilities and staffing. The City lacks specialty facilities such as: a splash pad, swimming pool, updated action sports park, fitness equipment, regional sports facility, and pickleball/tennis courts. The City would benefit from the addition of artificial soccer and baseball/softball fields, which would require less maintenance compared to turfed fields. The City recently added a new dog park and there is still demand for an additional one.⁴⁶

According to the 2020 National Recreation Park Association, a typical park and recreation agency has 8.1 full-time employees (equivalent) on staff for every 10,000 residents living in the service area.⁴⁷ At approximately 40,000 residents (2020 rounded population in the City), the City should have at least 32.4 full-time employees for its Parks and Recreation Division. Currently, the Division has employed 18.5 full-time employees, less than half of what should be standard for the service population.⁴⁸

Funding

Funding for the City's parks is provided through federal and State grant programs, benefit assessment districts, tax increment financing, and local sales tax measures. As previously shown in Table 4.14-1, *City of Los Banos 2021 Adjusted Development Impact Fees*, developers of residential projects are required to pay park impact fees for each new dwelling unit to generate revenue to fund the park facilities needed to serve new development. Other sources that can help fund parks development and maintenance include business sponsorships; partnerships with other agencies, non-profits, or private businesses; community groups; specialty agreements; joint powers agreements; and bonds.

⁴⁴ 42,900 existing residents/1,000 = 42.9; 264.35 acres of existing park/42.9 = 6.16 acres of parkland per 1,000 residents

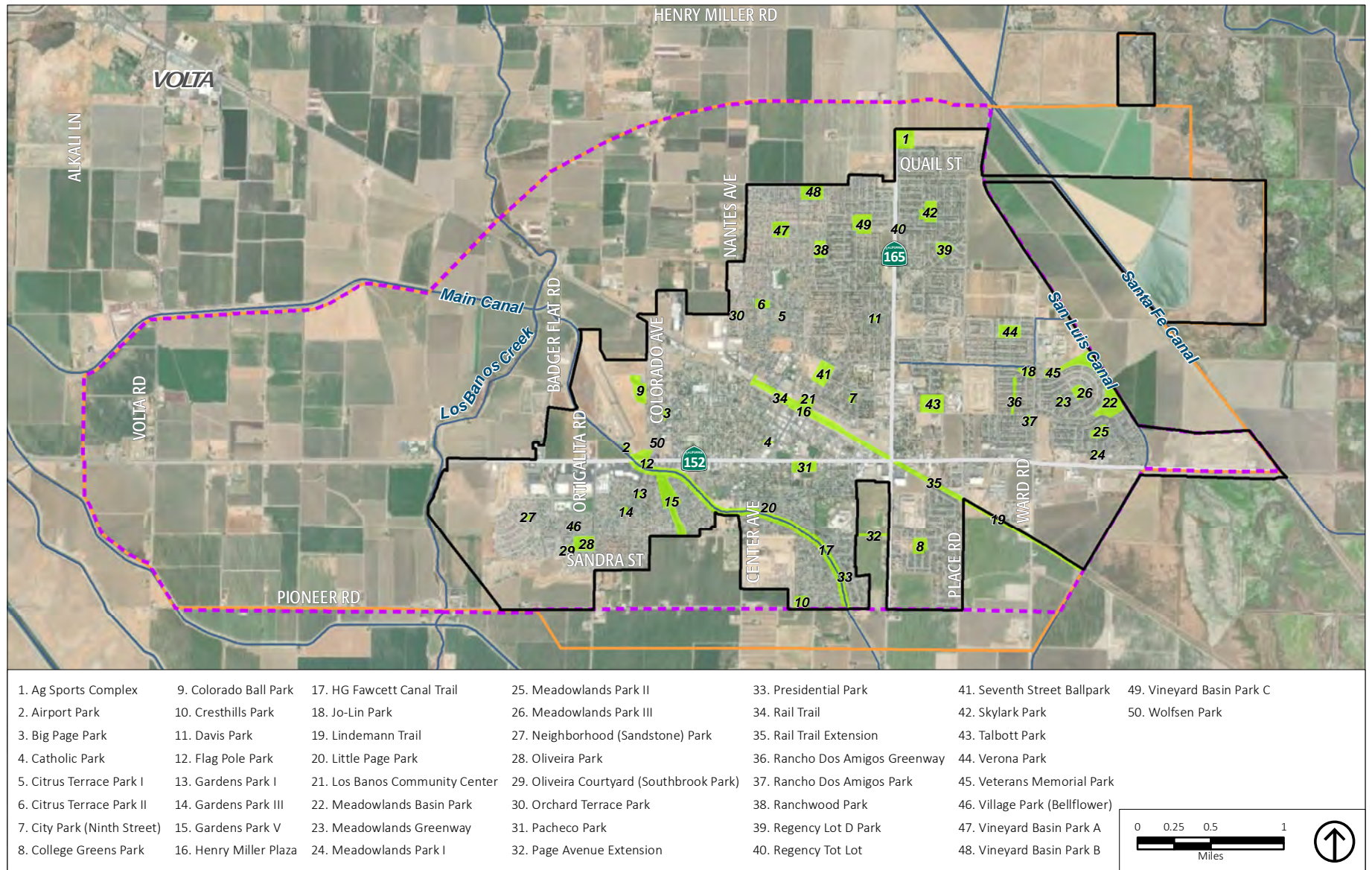
⁴⁵ 42,900 existing residents/1,000 = 42.9; 220.10 acres of existing park/42.9 = 5.13 acres of parkland per 1,000 residents

⁴⁶ Heim, Joe. Parks and Recreation Operations Manager, Los Banos Parks and Recreation Division. Personal communication with PlaceWorks, February 10, 2022.

⁴⁷ National Recreation and Park Association, 2021. 2021 NRPA Agency Performance Review, page 16.

⁴⁸ Heim, Joe. Parks and Recreation Operations Manager, Los Banos Parks and Recreation Division. Personal communication with PlaceWorks, February 10, 2022.

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Source: City of Los Banos, 2022; PlaceWorks, 2022.

Figure 4.14-3

City Limit Proposed Urban Growth Boundary (UGB) Proposed Sphere of Influence (SOI) Parks Parks and Recreation Facilities

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4.14.5.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in a significant impact to parks and recreation facilities if it would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered parks facilities, need for new or physically altered parks facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.
2. 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.
3. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact.

4.14.5.3 IMPACT DISCUSSION

PS-9	Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered parks facilities, need for new or physically altered parks facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.
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As discussed in Section 4.14.5.2, *Environmental Setting*, the EIR Study Area currently provides 6.3 acres of parkland per 1,000 residents, which exceeds the City's adopted standard, as stated in the LBMC Section 9-2.1603, Park Acreage Standard, of providing 5.0 acres of parkland per 1,000 residents.⁴⁹ However, implementation of the proposed General Plan could introduce up to 29,600 new residents, which would increase the demand for parks and recreational facilities.

The General Plan 2042 Parks, Open Space, and Conservation (P) Element contains goals, policies, and actions that require local planning and development decisions to consider and mitigate impacts that potential future development could have on available parkland and the quality of facilities. The following goals, policies, and actions would serve to reduce impacts to parks, recreation, and open space in the EIR Study Area.

- **Goal P-1.** Establish and maintain a high-quality public park system for Los Banos.
 - **Policy P-P1.1.** Provide a range of park and recreation facilities to serve the needs of all residents and within close proximity to residents they are intended to serve to provide 5 acres of parkland for every 1,000 residents.

⁴⁹ 42,900 existing residents/1,000 = 42.9; 264.35 acres of existing park (including trails)/42.9 = 6.16 acres of parkland per 1,000 residents.

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- **Policy P-P1.2.** Provide a unified and consistently marked trail system throughout the city, including bikeways, pathways, sidewalks, and other trails that link key destinations in the city, including parks and recreational facilities, community facilities, public schools, and downtown.
- **Policy P-P1.3.** Preserve and maintain open space around the city for future generations.
- **Policy P-P1.4.** Continue to provide public access to public open space to the maximum extent feasible.
- **Policy P-P1.5.** Involve citizens, especially youths, in maintaining park areas through participation in park watches, citizen-based graffiti watch, cleanup, and repair.
- **Policy P-P1.6.** Maintain and update a 10-year Park and Recreation Master Plan in consultation with the Parks and Recreation Commission. Community design standards for new park and recreation facilities should include: standards for bicycle/pedestrian and handicapped access; minimum safety standards in accordance with State guidelines; and allowable native and drought-resistant plant species.
- **Policy P-P1.7.** Develop new parks with high-quality park facilities that are durable and require low maintenance, wherever possible. Retrofit existing parks, as appropriate, to reduce maintenance cost and water use, and to improve safety and aesthetics.
- **Policy P-P1.8.** Link parks together by a system of trails, bicycle paths, and/or open space.
- **Action P-A1.1.** Acquire and develop parks and open spaces, consistent with the ability of the City to finance acquisition and operation, to reach a functional goal of 5 acres per 1,000 residents.
- **Action P-A1.2.** Establish the following minimum criteria as a guide to improving the park system: Neighborhood parks should have a minimum size of two to nine acres and a general service area of one-half mile radius; and community parks should have a minimum size of 10 acres and a general service area of a two-mile radius.
- **Action P-A1.3.** Continue to develop existing trails and linkages and create new trails where feasible:
 - **Rail Corridor Park.** Continue to develop the Rail Corridor Park and implement developments in the Rail Corridor Master Plan.
 - **HG Fawcett Parkway.** Continue to improve and expand the HG Fawcett Parkway with active daytime uses consistent with Central California Irrigation District (CCID) use agreement, which may include exercise equipment, park furniture, and landscaping.
 - **Los Banos Creek Trail.** Prepare and adopt a Los Banos Creek Parkway Plan prior to development of creekside properties.
- **Goal P-2.** Establish long-term, sustainable approaches to park management and development within the Los Banos Planning Area.
 - **Policy P-P2.1.** Only approve pocket parks as part of a Planned Development if the long-term maintenance of such facilities is guaranteed by a legally established maintenance district.
 - **Policy P-P2.2.** Actively pursue and use available public and private funding sources for land acquisition, facility construction, program development, and maintenance of parks and open spaces.

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- **Policy P-P2.3.** Coordinate with the Los Banos Unified School District to promote joint development and use of school facilities after school hours.
- **Policy P-P2.4.** Pursue and maintain shared-use recreational facilities where possible, including on school grounds and utility easements, and look for additional partnership opportunities to expand resident access to shared facilities.
- **Policy P-P2.5.** Design park facilities to be as flexible as possible, so that they may adapt to changes in the population served and in the recreation program offered.
- **Policy P-P2.6.** Continue to cooperate with school districts in locating schools to allow for park development adjacent to campuses.
- **Policy P-P2.7.** Seek agreements and joint ventures with private entities to provide recreation facilities and activities.
- **Policy P-P2.8.** Pursue support from federal, state, and private sources to assist with acquisition, design, and construction of parks and recreation facilities.
- **Action P-A2.1.** Amend the Subdivision Ordinance to require developers to dedicate and improve any portion of a planned bike path or trail system that passes through their development project sites, including any needed linkages to the regional bicycle and trail system.
- **Action P-A2.2.** Include funding for trail acquisition and trail improvements in the Park Development Fee Program.
- **Goal P-3.** Ensure parks and open spaces are equitably distributed and accessible for all residents, especially disadvantaged communities.
 - **Policy P-P3.1.** Prioritize creation of parks and open space in areas that are determined to lack adequate park space.
 - **Policy P-P3.2.** Partner with transit agencies to ensure that parks and recreational facilities are accessible to low-income populations and communities of color.
 - **Policy P-P3.3.** Provide equitable access to safe recreational activities and parks among all neighborhoods in Los Banos so that all residents are empowered to choose an active lifestyle that supports their health.
 - **Policy P-P3.4.** Maintain joint-use agreements that provide access to recreation facilities serving disadvantaged communities.
 - **Policy P-P3.5.** Increase access to diverse, high-quality parks, green space, recreational facilities, and natural environments for disadvantaged communities. Design and maintain these facilities to offer a safe and comfortable environment for residents of all ages and abilities.
 - **Policy P-P3.6.** Rather than allowing in-lieu fees, require major new development projects in disadvantaged communities to improve existing park and recreation amenities within these communities and/or to add new amenities within the project, ideally open to the public. In-lieu fees may only be used when amenity improvements or new amenities are not feasible, as determined by the City.

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- **Policy P-P3.7.** Increase recreation opportunities in disadvantaged communities by working with other agencies to convert public easements, such as utility corridors or unused rights-of-way, into parks and trails.
- **Policy P-P3.8.** Promote recreational activity programs and opportunities to disadvantaged communities.
- **Policy P-P3.9.** Partner with local school districts and non-profit organizations to improve access to bicycles, helmets, and related equipment for lower-income families.
- **Action P-A3.1.** Coordinate with park districts to prepare a parks, recreation, and open space needs assessment for each disadvantaged community. Based on the results of the assessment for each community, implement improvements that address barriers to outdoor physical activity, such as inadequate infrastructure and safety concerns. Prioritize park, recreation, and open space improvement activities to lower-income and higher-density areas, which may have a demonstrably greater need for these amenities.
- **Action P-A3.2.** Work with the City Parks and Recreation Division and the Los Banos Unified School District to identify indoor recreational and athletic facilities to serve as emergency housing and cooling centers in disadvantaged communities for natural hazards or extreme heat events. In addition, work with these districts to prepare a list of priority improvements at these facilities to implement in preparation for emergency events.
- **Goal P-4.** Empower communities to participate in developing and maintaining parks, open spaces, facilities, and programming.
 - **Policy P-P4.1.** Partner with and support local community groups and volunteer organizations in efforts to improve or maintain local parks, trails, and other public spaces, especially in disadvantaged communities.
 - **Policy P-P4.3.** Assist disadvantaged communities in establishing funding and financing mechanisms – both community-generated mechanisms like building improvement districts and City-initiated mechanisms like landscape and lighting improvement districts – to provide community-desired public facilities and services.
 - **Policy P-P4.4.** Promote a sense of community responsibility for maintaining and improving the parks and recreation system, and offer ways for individuals, groups, and businesses to invest time and resources in that effort.

The proposed General Plan would maintain the current parkland standard of 5.0 acres per 1,000 residents. To meet this standard, the City would need a total of 362.5 acres of parkland to serve the projected buildout population of 72,500 total residents by 2042 under the proposed project. The City currently has 264.35 acres of developed parkland. The difference between the future need of 362.5 acres and 264.35 acres is 98.15 net new acres needed. As shown in the listed General Plan goals, policies and actions, the City would be required to seek funding and partnerships to acquire and develop new parks in Los Banos over the 20-year buildout horizon. For example, Policy P-P1.6 would require the City to maintain and update a 10-year Park and Recreation Master Plan. Concepts for planned community parks identified in the 2021 Parks Master Plan include a regional sports facility in the southwest area of the city; an aquatics center downtown with indoor swimming and recreational facilities; renovation and expansion

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of some existing parks; expansion of the Ag Sport Complex in the northeast area of the city; renovation of Colorado Park; and acquisition of new parkland areas through private and public funding sources or through development contributions. Additionally, Action P-A1.1 would require the City to acquire and develop parks and open spaces, consistent with the ability of the City to finance acquisition and operation, to reach a functional goal of five acres per thousand residents; Policy P-P2.3, would require the City to coordinate with the Los Banos Unified School District to promote joint development and use of school facilities after school hours, and Policy P-P2.4, would require the City to pursue and maintain shared-use recreational facilities where possible, including on school grounds and utility easements, and look for additional partnership opportunities to expand resident access to shared facilities.

The proposed project also includes the proposed Annexation Ordinance that, as described in detail in Chapter 3, *Project Description*, of this Draft EIR, states the application eligibility criteria and the findings necessary for approval. To be eligible for annexation, a property must be contiguous with existing city limits, within the Urban Growth Boundary, and at least 75 percent within the Sphere of Influence. The annexation must be consistent with the policies of the City's general plan and all appropriate City development standards and must be processed under an application for a specific plan funded fully by the applicant that includes zoning for the subject area and that may also include a development agreement. In addition, the new development must fully fund construction of all improvements needed both on- and off-site to mitigate its impacts on parks and recreation facilities. The proposed Annexation Ordinance requires that Specific Plans for all development identify the location and financing of parks, trails, and other public and quasi-public facilities. Moreover, Specific Plans for residential development must include a system of pedestrian trails or pathways and linear open-space corridors that link residents to parks, schools, downtown, shopping areas, and employment centers. Specific Plans for employment areas must include provisions for services and amenities for employees, including recreation. Therefore, the proposed Annexation Ordinance would help to ensure that new development anticipates and addresses potential impacts resulting from the increased need for parks facilities.

New residential development would be required to pay park impact fees to generate revenue to fund the park facilities needed to serve new development. In addition, new residential development is required to pay the City's impact fees that are adopted at the time of future project approval. Current fees at the time of this Draft EIR are listed in Table 4.14-1, *City of Los Banos 2021 Adjusted Development Impact Fees*.

Implementation of the proposed project components as listed above, combined with the implementation of the 2021 Parks Master Plan and ongoing collection of impact fees, would help to ensure that the proposed new service level is achieved and maintained.

The City is currently above the existing 5.0 acres per 1,000 acres of parkland standard for parkland adopted in the LBMC and the City is anticipated to meet the proposed ratio upon buildout of the proposed General Plan with the implementation of policies and programs requiring park dedication and fees for new development. LBMC Section 9.2.1603, Park Acreage Standard, would continue to require residential subdivisions to either provide parkland or pay in-lieu fees for the City to dedicate parkland elsewhere. This would result in the incremental addition of parkland if a residential subdivision is proposed in the city.

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As indicated above, new residents from development allowed by the proposed General Plan would increase the demand for recreational facilities, and recreational facility standards would require the construction of new or expanded recreation facilities. The estimated timing or location of such 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 mitigating policies and mitigation measures described in this EIR 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 EIR is a programmatic document and does not evaluate the environmental impacts of future project-specific development. Therefore, the impact is considered *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

PS-10	Implementation of the proposed project would not 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.
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Future development in Los Banos would result in increased population, which would increase demands for parks and recreational facilities in the EIR Study Area and regional parks in the larger Merced County Area, and could cause physical deterioration of park facilities. However, the regional parks and recreation areas are of substantial size and distance such as the proposed new population in Los Banos, which would occur over time, would not cause substantial physical deterioration. Moreover, the proposed General Plan contains goals, policies, and actions that would support parkland goals, and as described in Section 4.14.5.1, *Environmental Setting*, the LBMC establishes parkland dedication and/or fee requirements for new residential development, helping to ensure that individual park and recreation facilities are not overburdened by use. As discussed in the Section 4.14.5.1, *Environmental Setting*, the 2021 Parks Master Plan has many planned improvements for parks over the next 15 years. These include specific projects to replace aging equipment, repaving, restroom repair, updating of ADA resources, among others.

The proposed Parks, Open Space, and Conservation Element contains goals, policies, and actions that require local planning and development decisions to consider and mitigate impacts that potential future development could have on existing parks and the quality of the facilities. Several proposed goals, policies, and actions, as listed in impact discussion PS-9, ensure that parks, recreational facilities, and open space are adequately maintained and protect the public's investment in park and recreation facilities. While potential future development under implementation of the proposed General Plan would result in an increased population with an increased demand for parks and recreational facilities, buildout would occur incrementally throughout the 20-year horizon, and future development would be subject to the proposed General Plan goals, policies, and programs listed in impact discussion PS-9; therefore, impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

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PS-12	Implementation of the proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in a cumulative parks and recreation impact.
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As discussed in Chapter 4, *Environmental Analysis*, this EIR takes into account growth from development under the proposed project within the City combined with the estimated growth in the service areas of each service provider. Parks and recreation services in the EIR Study Area are provided by the City, and regional parks are provided by the County of Merced's Parks and Recreation, California Department of Parks and Recreation, California Fish and Wildlife Service, and the United States Fish and Wildlife Service.

Future growth in the area would result in increased demand for park and recreational facilities throughout the city and region. As a result, and as described in impact discussion PS-9 and PS-10, the City would need to expand and construct additional parks and other recreational facilities to meet the increased demand and maintain existing service levels. State law allows jurisdictions to require additional development to fund park improvements, and the City requires new residential development to pay development impact fees to help fund parks and recreation. Proper implementation of the policies listed under Impacts PS-9 would also help ensure the provision of adequate parklands along with new development. The final location and size of additional facilities would be determined as part of future development activity, and as specific parkland expansion or improvement projects are identified, additional project-specific, environmental analysis would be completed. As a result, the proposed project would not result in a cumulatively considerable impact to park and recreational facilities and cumulative impacts would be *less than significant*. No mitigation measures are required.

Significance without Mitigation: Less than significant.

4.15 TRANSPORTATION

This chapter describes the potential transportation impacts associated with the adoption and implementation of the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential transportation impacts, and identifies General Plan policies that could minimize any potentially significant impacts.

4.15.1 ENVIRONMENTAL SETTING

4.15.1.1 TERMINOLOGY

The following are definitions for terms used in this chapter.

- **Vehicle Miles Traveled (VMT).** A measure of network use or efficiency that accounts for the number of daily vehicle trips generated, times the length or distance of those trips. VMT is generally expressed as VMT per capita for a typical weekday.
- **Greenhouse gases (GHG).** Gases in the atmosphere that absorb infrared light, thereby retaining heat in the atmosphere and contributing to a greenhouse effect.

4.15.1.2 REGULATORY FRAMEWORK

This section describes federal, state, regional, and local environmental laws and policies that are relevant to the California Environmental Quality Act (CEQA) review process for transportation.

Federal Regulations

Applicable federal regulations pertaining to transportation are addressed in other chapters of this EIR, including Chapter 4.3, *Air Quality*; Chapter 4.8, *Greenhouse Gas Emissions*; and Chapter 4.9, *Hazards and Hazardous Materials*. The federal Clean Air Act, the Fixing America's Surface Transportation Act, and the Americans with Disabilities Act may have some relevance or influence for individual projects or actions as part of potential future projects in the EIR Study Area. Additionally, the Federal Highway Administration (FHWA) is the agency of the United States Department of Transportation (USDOT) responsible for the federally funded roadway system, including the interstate highway network and portions of the primary State highway network, such as Interstate 5 (I-5).

State Regulations

Senate Bill 743

With the passage of SB 743 (September 2013) and the subsequent adoption of revised CEQA Guidelines (December 2019), level of service, also referred to as LOS, can no longer be used as a criterion for identifying significant transportation impacts for most projects under CEQA. Level of service is the measure of the average amount of delay experienced by vehicle drivers at an intersection or along a road segment during the most congested time of day, while the new CEQA metric (VMT) measures the total

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number of daily miles traveled by vehicles on the roadway network and thereby the impacts on the environment from those miles traveled. Level of service is a measure of local vehicle congestion at an intersection or on a road segment, and VMT is a measure of the total miles of vehicle travel measured at an area-wide or project-level scale. In other words, SB 743 changed the focus of transportation impact analysis in CEQA from measuring quality-of-life impacts to drivers, to measuring the physical impacts of driving on the environment. According to the Governor's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory)¹ land use projects with one or more of the following characteristics would generate lower VMT than conventional development:

- Higher land use densities
- Mix of project uses
- Support of a citywide jobs-housing balance (i.e., provide housing in a job rich area, or vice versa)
- Proximity to the core of a region
- Proximity to high-quality transit service
- Located in highly walkable or bikeable areas

This shift in transportation impact criteria is expected to better align transportation impact analysis and mitigation outcomes with the State's goals to reduce GHG emissions, encourage infill development, and improve public health through more active transportation. Specific to SB 743, CEQA Guidelines Section 15064.3(c) states that, "a lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide." However, CEQA Section 21099(b)(2) states that, "upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the CEQA Guidelines."

Although the OPR provides recommendations for adopting new VMT analysis guidelines, lead agencies have the final say in designing their methodology. Lead agencies must select their preferred method of estimating and forecasting VMT, their preferred significance thresholds for baseline and cumulative conditions, and the mitigation strategies they consider feasible. Lead agencies must prove that their selected analysis methodology aligns with SB 743's goals to promote infill development, reduce GHGs, and reduce VMT.

California Complete Streets Act of 2008

Originally passed in 2008, California's Complete Streets Act came into effect in 2011 and requires local jurisdictions to plan for land use transportation policies that reflect a "complete streets" approach to mobility. "Complete streets" comprises a suite of policies and street design guidelines which provide for the needs of all road users, including pedestrians, bicyclists, transit operators and riders, children, the elderly, and the disabled. From 2011 onward, any local jurisdiction—county or city—that undertakes a substantive update of the circulation element of its general plan must consider "complete streets" and incorporate corresponding policies and programs.

¹ *Technical Advisory on Evaluating Transportation Impacts in CEQA*, Governor's Office of Planning and Research, April 2018.

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The California Department of Transportation (Caltrans) is the primary State agency responsible for transportation issues. One of its duties is the construction and maintenance of the State highway system. Caltrans approves the planning, design, and construction of improvements for all State-controlled facilities including I-5, State Route (SR-) 152, SR-165, and the associated interchanges for these facilities located in the EIR Study Area. Caltrans has established standards for roadway traffic flow and developed procedures to determine if State-controlled facilities require improvements. For projects that may physically affect facilities under its administration, Caltrans requires encroachment permits before any construction work may be undertaken. For projects that would not physically affect facilities but may influence traffic flow and levels of service at such facilities, Caltrans may recommend measures to mitigate the traffic impacts of such projects.

The following Caltrans procedures and directives are relevant to the proposed General Plan, particularly to State roadway facilities:

- **Vehicle Miles Traveled-Focused Transportation Impact Study Guide.** The Caltrans *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (TISG), dated May 20, 2020, was prepared to provide guidance to Caltrans districts, lead agencies, tribal governments, developers, and consultants regarding Caltrans' review of VMT impact analysis for land use projects and land use plans. Caltrans seeks to reduce single-occupancy vehicle trips, provide a safe transportation system, reduce per capita VMT, increase accessibility to destinations via cycling, walking, carpooling, and transit, and reduce GHG emissions. The TISG notes that, for land use projects and plans, automobile delay (the level of service metric) is no longer considered a significant impact on the environment under CEQA. Caltrans' primary review focus for a land use project's transportation impacts is now VMT. The TISG generally endorses the OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory), including the thresholds in that document. Caltrans may review VMT thresholds, methodology, and mitigations.
- **Interim Land Development and Intergovernmental Review (LDIGR) Safety Review Practitioners Guidance.** The Interim LDIGR Safety Review Practitioners Guidance (July 2020) was developed to provide immediate direction about the safety review while final guidance is being developed. The Interim LDIGR Safety Review Practitioners Guidance does not establish thresholds of significance for determining safety impacts under CEQA. The Interim LDIGR Safety Review Practitioners Guidance states that the significance of impacts should be determined with careful judgment on the part of a public agency and based, to the greatest extent possible, on scientific and factual data consistent with Caltrans' CEQA guidance contained in Caltrans' Standard Environmental Reference. The Interim LDIGR Safety Review Practitioners Guidance states that Caltrans' traffic safety staff will use available data to determine if the proposed project may influence or contribute to locations identified by traffic safety investigations generated by network screening or initiated by the district.
- **Deputy Directive 64-RI: Complete Streets – Integrating the Transportation System.** This directive requires Caltrans to provide for the needs of travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities and products on the State highway system. Caltrans supports bicycle, pedestrian, and transit travel with a focus on "complete streets" that begins early in system planning and continues through project construction and maintenance and operations.

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- **Director's Policy 22.** This policy establishes support for balancing transportation needs with community goals. Caltrans seeks to involve and integrate community goals in the planning, design, construction, and maintenance and operations processes, including accommodating the needs of bicyclists and pedestrians. Director's Policy 22 recognizes that "in towns and cities across California, the State highway may be the only through street or may function as a local street," that "these communities desire that their main street be an economic, social, and cultural asset as well as provide for the safe and efficient movement of people and goods," and that "communities want transportation projects to provide opportunities for enhanced non-motorized travel and visual quality." Director's Policy 22 acknowledges that addressing these needs will assure that transportation solutions meet more than just traffic and operational objectives.

Caltrans recognizes four classifications of bicycle facilities.

- **Class I.** Commonly referred to as a bike path or bikeway, Class I facilities are separated from automobile traffic for the exclusive use of bicyclists.
- **Class II.** Commonly referred to as bike lanes, Class II facilities are dedicated for bicyclists immediately adjacent to automobile traffic.
- **Class III.** Commonly referred to as bike routes, Class III facilities are on-street routes where bicyclists and automobiles share the road.
- **Class IV.** Commonly referred to as cycle tracks or protected bike lanes, Class IV facilities combine elements of Class I and Class II facilities to offer an exclusive bicycle route immediately adjacent to a roadway, similar to a Class II facility, but include a physical separation from traffic with raised curbs, plastic delineators, or parked automobiles.

Regional Regulations

Regional Transportation Plan and Sustainable Communities Strategy

Senate Bill 375 requires all metropolitan planning organizations (MPO) to prepare a sustainable communities strategy (SCS) in its regional transportation plan (RTP). The Merced County Association of Governments (MCAG) is the MPO for the Merced County region. MCAG updated and adopted a SCS in its RTP on August 6, 2018 called the *2018 Regional Transportation Plan and Sustainable Communities Strategy for Merced County* (2018 RTP/SCS).² The 2018 RTP/SCS emphasizes transportation investments in transportation facilities to improve bicycle and pedestrian mobility. Furthermore, implementation of the 2018 RTP/SCS is projected to result in a decrease in VMT throughout the region.

The RTP/SCS is required so that MCAG can receive federal and State funding for transportation projects and programs. The 2018 RTP/SCS includes a "Tier Project List," which provides a list of financially constrained projects consistent with financial revenue forecasts through 2042. The Tier 1 projects represent financially constrained projects while the Tier 2 projects are projects that could only be implemented without financial constraints.

² Merced County Association of Governments, 2018, *Regional Transportation Plan Sustainable Communities Strategy for Merced County*.

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The 2018 RTP/SCS covers the period from 2018 to 2042. Previously, the Los Banos Bypass was a Tier I project in the 2014 RTP/SCS. However, Caltrans notified MCAG in 2017 that the Los Banos Bypass project was being placed on hold until construction funds, which could total over \$450 million, are programmed in a future cycle of the State Transportation Improvement Program (STIP) or by other funding sources. The Los Banos Bypass was moved to the Tier 2 category in the 2018 RTP/SCS.

Based on public input and City Council direction in late 2017, the City submitted a list of projects to MCAG that should be included in the 2018 RTP/SCS:

- Merced College Bike/Pedestrian Trail
- Pioneer Road Widening
- H Street, Badger Flat Road, Overland Avenue Widening
- Mercey Spring Road/State Route 165 Widening

In addition to specific roadway improvements and in response to State GHG reduction goals, the 2018 RTP/SCS seeks to reduce GHG emissions from transportation sources in Merced County through funding transportation improvements such as:

- Increased transit frequency, fare reductions, and express transit;
- Additional ridesharing, vanpooling, and zero-emissions vehicle incentives;
- Aggressive bicycle and pedestrian infrastructure improvements; and
- Passenger rail improvements that shift commuters from cars to trains.

Improvements specific to Los Banos include:

- Complete streets projects in Downtown Los Banos
- Multipurpose bike/pedestrian path and bridge across the Los Banos Creek
- Class II bike lanes: H Street- Badger Flat from Pacheco to H Street- Overland

Local jurisdictions, including Los Banos, are responsible for reviewing their own general plans and local developments for consistency with the 2018 RTP/SCS.

Merced County Regional Bicycle Transportation Plan

The current *Merced County Regional Bicycle Transportation Plan* was adopted in 2008. Its overarching goal is to guide development of a comprehensive regional bikeway system throughout the county, including unincorporated areas of the county as well as incorporated cities, in order to improve safety and convenience and increase the number of people who commute and recreate on bicycles. The *Merced County Regional Bicycle Transportation Plan* includes goals and policies that address safety, education (of both drivers and riders), and connectivity and accessibility. Finally, it provides information on various State and federal sources of funding for bicycle improvements.

The *Merced County Regional Bicycle Transportation Plan* encourages new development that “allows full, continuous and uninterrupted access for bicycle, pedestrian and other non-motorized modes of

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transportation,” and discourages “dead-end cul-de-sacs [that] limit bicycle and pedestrian access.”³ It also provides standards and guidelines for bikeway facility design, construction, and maintenance, and recommends support facilities such as parking, lockers, showers, and water fountains. In Los Banos, the *Merced County Regional Bicycle Transportation Plan* recommends that the City amend development codes to require bicycle parking for all new public, semi-public, commercial, and industrial development, and establish a program to encourage existing public, semi-public, commercial, and industrial development to provide bicycle parking. The *Merced County Regional Bicycle Transportation Plan* recommends about \$1.8M worth of improvements in and around Los Banos, which includes the following:

- Class I bike path on the abandoned railroad right-of-way starting at San Luis Canal heading southeast to Dos Palos
- Class II bike lane on Highway 152 from Mercey Springs Road west to the main canal
- Class II bike lane on Highway 165 north to Henry Miller Road
- Class II bike lane on Turner Island Road north to Sandy Mush Road

Local Regulations

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives pertaining to transportation. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions related to transportation impacts are included in Title 3, *Finance*; Title 4, *Public Safety*; and Title 9, *Planning and Zoning*; as follows:

- **Title 3, *Finance*, Chapter 18, *Regional Transportation Impact Fee*.** Chapter 18 describes the regional transportation impact fee ordinance that is intended to raise additional revenues needed to construct improvements to accommodate traffic that will be generated by new development within Merced County and the City of Los Banos.
 - **Section 3-18.06, *Establishment of Regional Transportation Impact Fee*.** This section describes the process for determining the fees and the amount of the fee to be paid by each land use category to contribute their fair share of impacts to the transportation network.
- **Title 4, *Public Safety*, Chapter 5, *Traffic*.** Chapter 5 sets forth the laws and policies governing the regulation and enforcement of specific traffic-related matters within the city.
 - **Section 4-5.05, *Establishment of Traffic Safety Committee*.** This section creates a Traffic Safety Committee comprised of members from the Public Services Department, Community Development/Planning, and the Police and Fire Departments.
 - **Section 4-5.06, *Powers and Duties of the Traffic Safety Committee*.** This section states that the duties of the Traffic Safety Committee are to initiate or review all proposals or requests for establishment, modification, elimination, or removal of all traffic control signs, signals, markings, speed zones, prohibited or restricted parking zones, or other such related matters, which fall under the lawful discretionary control of the City.

³ MCAG, *Merced County Regional Bicycle Transportation Plan*, page 6..

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- **Title 9, *Planning and Zoning*, Chapter 3, *Zoning*, Article 20, *Off-Street Parking*.** Article 20 describes the provision of off-street parking as specified by land use type and specifies parking design parameters.

Los Banos Bicycle-Pedestrian Plan

The *City of Los Banos Bicycle-Pedestrian Plan* (Los Banos Bicycle-Pedestrian Plan) was adopted in 2018. The vision of the Los Banos Bicycle-Pedestrian Plan is to develop a safe, convenient system of bikeways and walkways that serve the needs of the community, including recreational users. There are 39 proposed Class I and II bikeway projects, as well as programs to support cycling in the city, such as bicycle parking, transit connections, and bicycle repair shops. The Los Banos Bicycle-Pedestrian Plan also proposes programs to encourage developers to provide bicycle parking or to substitute vehicle parking spaces with bicycle spaces or City cost-sharing for bicycle support facilities. Development policies are identified to encourage bicycle and pedestrian travel; continuous, uninterrupted bicycle and pedestrian systems; frequent, safe crossings; and integral bicycle and pedestrian facilities and systems. The Los Banos Bicycle-Pedestrian Plan recommends a variety of programs to increase awareness and inform the public about where and how to bike and walk in the city; to educate cyclists, motorists, and public officials on bicycle safety and the rights of bicyclists and pedestrians; and to incentivize walking and biking.

Pacheco Boulevard Complete Streets Plan

The Los Banos City Council accepted the Pacheco Boulevard Complete Streets Plan on January 6, 2021. The Pacheco Boulevard Complete Streets Plan has the following objectives: improve safety for all users of the street, including people driving, walking, and bicycling; improve traffic flow; make Pacheco Boulevard more attractive and welcoming for residents and visitors; and improve parks and other public amenities along Pacheco Boulevard.

To address these objectives, the Pacheco Boulevard Complete Streets Plan provides improvement concepts organized under the following categories:

- **Traffic Flow and Safety.** The concepts include proposed improvements such as increasing speed enforcement, improving street lighting, reducing driveway conflicts, reducing left-turn movements across traffic, and other measures.
- **Aesthetics and Urban Design.** The concepts include landscaped medians (in limited locations), improving existing parks and landscaping along the corridor, and ideas for new gateway locations welcoming people into the city and pointing people to Downtown.
- **Pedestrian Improvements.** The concepts include best practices for pedestrian improvements and improved high-visibility pedestrian crossings both along Pacheco and, in a few locations, across it.
- **Bicycle Improvements.** The plan proposes two parallel routes to Pacheco on streets to the north and south sides, and a long-term plan for creating bike lanes on Pacheco itself. There are also several proposals for connecting to and enhancing the regional bike/pedestrian trails that cross Pacheco (the Rail Trail and the Los Banos Creek Trail).

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Pioneer Road Complete Streets Plan

The Los Banos City Council also accepted the *Pioneer Road Complete Streets Plan* on January 6, 2021. The *Pioneer Road Complete Streets Plan* has the following objectives: make Pioneer Road an arterial roadway that will accommodate existing and planned land uses; provide an alternative route for Los Banos residents and users of Pacheco Boulevard; make aesthetic and safety improvements to Pioneer Road; plan for safe and comfortable pedestrian and bicycle improvements along Pioneer Road and connect to regional multi-use trails and bike routes; and minimize any adverse effects of Pioneer Road improvements on residents, property owners, agricultural operations, business owners and other users of Pioneer Road.

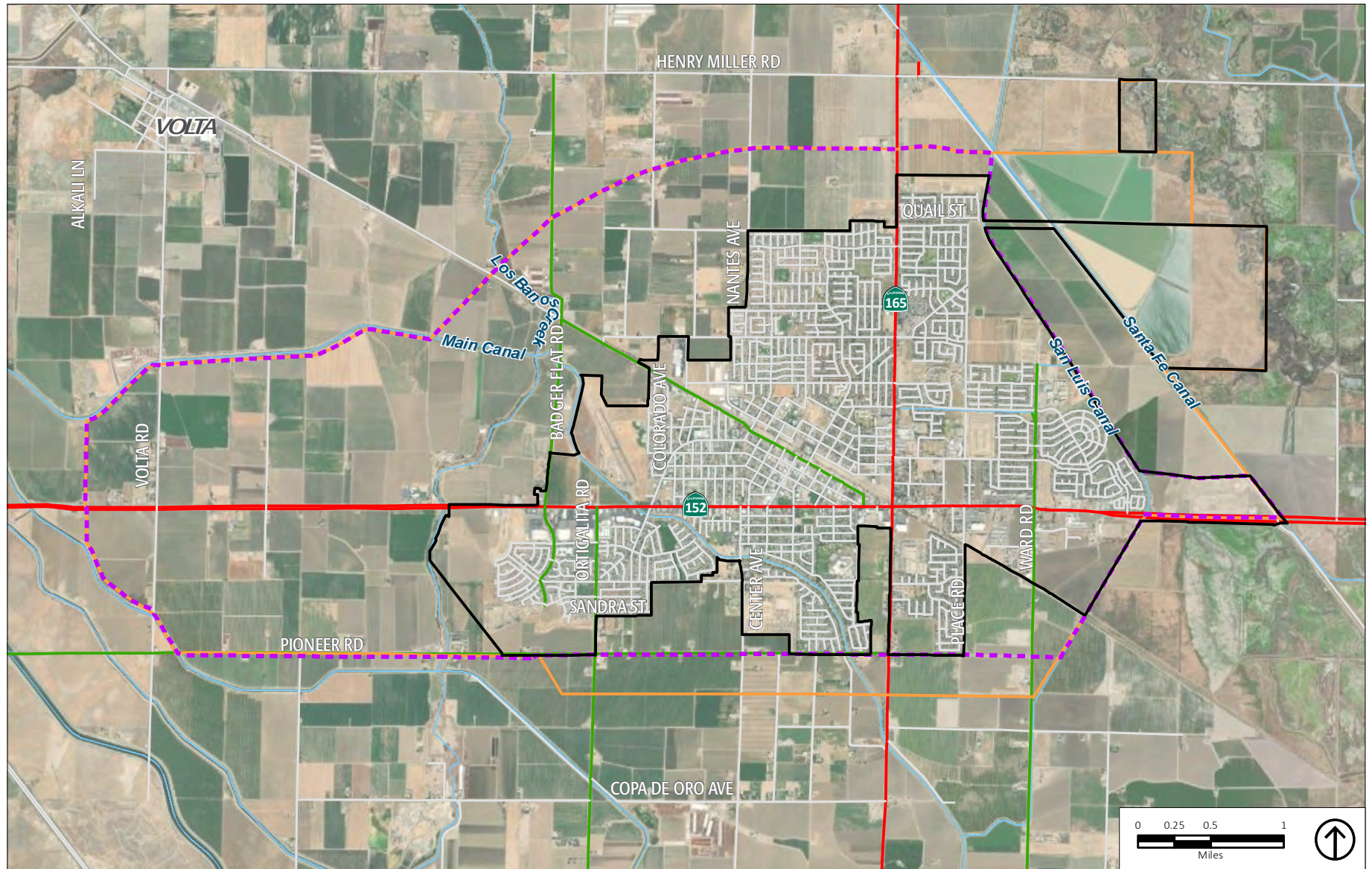
Pioneer Road is proposed to become a four-lane arterial street, with a center median and traffic signals at major intersections. Because Pioneer Road is anticipated to relieve some of the congestion on Pacheco Boulevard, the connections from Pioneer to Pacheco at the east and west are integral to the success of the project. The *Pioneer Road Complete Streets Plan* calls for the alignment of these Pacheco-Pioneer connections to occur in two phases: a near-term phase with a new road connection east of Los Banos Creek (called West Connector) on the west side and Ward Road on the east side; and a future phase which will extend Pioneer Road west to Volta Road and improve Volta Road between SR-152 and Pioneer. The *Pioneer Road Complete Streets Plan* shows a proposed typical configuration for Pioneer Road, and the new western connection near Los Banos Creek and Ward Road. It includes four lanes of traffic, a landscaped median, and a continuous pedestrian-bicycle trail that will connect this part of Los Banos together and to the regional trails that cross Pioneer. In some locations the median will be reduced to better fit physical constraints. The *Pioneer Road Complete Streets Plan* also shows visual simulations of what the improved road would look like at three locations. There are also recommendations for street lighting and landscaping. Additionally, the *Pioneer Road Complete Streets Plan* includes a conceptual alignment that shows the widened Pioneer Road, West Connector, and Ward Road in aerial view throughout the entire length. This alignment is conceptual only and will be refined in future engineering design.

4.15.1.3 EXISTING CONDITIONS

Roadway Network

The city's roadway network serves as the primary channel for all modes of travel. Roadways are organized using a hierarchical system, whereby individual roadways are classified by their intended function within the overall roadway network. These classifications – freeways, highways, arterials, collectors, and local roads – define the desired functional and operational characteristics of a roadway, such as traffic volume capacity and level of service. Figure 4.15-1, *Existing Roadway Network* depicts the existing number of lanes and arterial roadway network.

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Source: Merced County 2019; PlaceWorks, 2022.

- City Limit
- Proposed Urban Growth Boundary (UGB)
- Proposed Sphere of Influence (SOI)
- Roads
- State Highway
- Arterial

PLACEWORKS

Figure 4.15-1
Existing Roadway Network

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Freeways

Freeways are divided highways designed for the unimpeded flow of large traffic volumes. Most freeways are four lanes, or two lanes each direction. Access to a freeway is rigorously controlled through the use of interchanges, and the type of interchange depends upon the kind of intersecting roadway (surface street, rural road, another freeway, urban arterial, etc.) The future SR-152 Bypass, which is north of the city, falls under this category.

Highways

Pacheco Boulevard and Mercey Springs Road provide regional access in, to, and out of Los Banos.

- **Pacheco Boulevard (SR-152).** SR-152 extends from Highway 1 in Watsonville on the Pacific Coast, across I-5 about 6 miles west of Los Banos, and east to Highway 99 near Merced, connecting Los Banos to the larger region and the state. Within Los Banos city limits, SR-152 is known as Pacheco Boulevard, a five-lane street controlled by 13 traffic signals at major intersections. Los Banos has identified a number of challenges associated with the SR-152 corridor, including traffic congestion, truck traffic, accidents, and difficult pedestrian crossings.⁴
- **Mercey Springs Road (SR-165).** SR-165 extends from Highway 99 in the City of Turlock, north of Los Banos, through Los Banos and south to I-5. Within the Los Banos city limits, SR-165 is known as Mercey Springs Road. It is five lanes wide north of SR-152 and two lanes wide at the southern city limits.

Arterials

Arterials are designed to move large volumes of traffic between highways and other arterials within Los Banos and to adjacent jurisdictions. Major arterials are access-controlled roadways emphasizing mobility between major portions of the city and to regional freeways and highways. Minor arterials provide mobility through the city and access to residential, employment, and activity centers. On-street parking should not be provided on major arterials but may be appropriate for minor arterials that emphasize accessibility over mobility. Minor arterials should provide two travel lanes. Driveway access should be minimized, consistent with the primary function of arterials to move through traffic. Bike lanes, landscaped parkstrips, sidewalks, and transit facilities may also be accommodated within the right-of-way of minor arterials, depending on the right-of-way width.

Collectors

Collector streets provide a link between neighborhood streets and arterials. Collectors should provide two travel lanes and should be designed to include bicycle lanes, in particular where called for in the Los Banos Bicycle-Pedestrian Plan. On-street parking may be provided if sufficient width is available. Collectors also provide access to adjacent properties, so driveway access should be discouraged but need not be restricted (subject to accepted engineering practice). Bike lanes, landscaped parkstrips, sidewalks, and transit facilities may also be accommodated depending on the right-of-way available.

⁴ Pacheco Boulevard Complete Streets Plan, PlaceWorks, January 6, 2021.

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Local Roads

Local roadways directly serve residences, businesses, schools, and other services.

Truck Routes

Roadways in Los Banos carry a substantial number of trucks serving local businesses and traveling between I-5 and Highway 99 and other regional destinations. Los Banos has designated Pacheco Pass Road (SR-152) and Mercey Springs Road (SR-165) as local truck routes to allow truck traffic to pass through the city while minimizing impacts on residential neighborhoods, local traffic, and cyclists and pedestrians.

Rail

There are no active railway lines within the EIR Study Area. Los Banos was served by the West Side Line of the Southern Pacific Railway from the 1890s to the 1990s, including both freight and passenger rail service. However, Southern Pacific abandoned the section of track from Downtown Los Banos southeast to Oxalis in 1993.⁵ The tracks have since been disabled and converted to the Los Banos Rail Trail.

Northwest of Downtown, a freight rail line operated by California Northern Railroad connects Los Banos' industrial areas north to the City of Tracy. There is no passenger rail service along this line.

Future passenger rail service elsewhere in Merced County could include an extension of the Altamont Commuter Express (ACE) railway from Lathrop to Ceres (Phase I) and then to Merced (Phase II). The San Joaquin Regional Rail Commission is in the early stages of preparing the required environmental review documents for this extension.⁶ The high-speed rail alignment being constructed by the California High Speed Rail Authority is also planned to serve the City of Merced.

Bus and Transit

Local transit in Los Banos is provided by The Bus, which is operated by the transit Joint Powers Authority for Merced County. Currently, Los Banos is served by one commuter route that connects Los Banos to Dos Palos, El Nido, and Merced. A microtransit system, known as The Micro Bus, also serves the region and connects Los Banos to Santa Nella and Gustine. The Bus also provides Dial-A-Ride services for paratransit passengers and the general public throughout Los Banos, and to destinations in Los Banos, Dos Palos, Gustine, and Santa Nella. Reservations must be made in advance.

For intercity bus service, there is a Greyhound bus depot in Los Banos at 820 G Street. Tickets must be purchased in advance and are not sold at this location.

⁵ Wikipedia, "San Joaquin Valley Railroad," https://en.wikipedia.org/wiki/San_Joaquin_Valley_Railroad, accessed February 28, 2022.

⁶ ACE, <https://acerail.com/projects-initiatives/#27-41-altamont-corridor-vision>, accessed February 28, 2022.

MCAG has partnered with Dibs, CalVans, and Enterprise to provide ridesharing and vanpools throughout Merced County.⁷

Bicycle and Pedestrian Facilities

The flat topography and warm climate of Los Banos make walking and biking attractive transportation options for getting around. Los Banos has good bicycle connectivity along major transportation corridors. Bicycle paths, lanes, and trails are provided, but they are not continuous. Figure 4.15-2, *Existing and Planned Bicycle Facilities*, shows the existing bicycle and railway network according to the Los Banos Bicycle-Pedestrian Plan.

Bicycle Facilities

Caltrans recognizes four classifications of bicycle facilities, as described in Section 4.15.1.2.

There are two major Class I bike paths (separated facilities) in Los Banos: The Central California Irrigation District (CCID) Canal pathway (also known as the HG Fawcett Parkway) from Pioneer Road to I Street, and the Rail Trail path, which parallels H Street from 2nd Street to the intersection of Pacheco Boulevard and Mercey Springs Road. These bike paths connect neighborhoods with recreation facilities, schools, churches, shopping, dining, and services. In addition, there are several shared-use paths (Class I facilities on sidewalks), Class II bike lanes (facilities, separated by striping) and Class III bike routes which share a lane with cars and are denoted by sharrows⁸.

Pedestrian Facilities

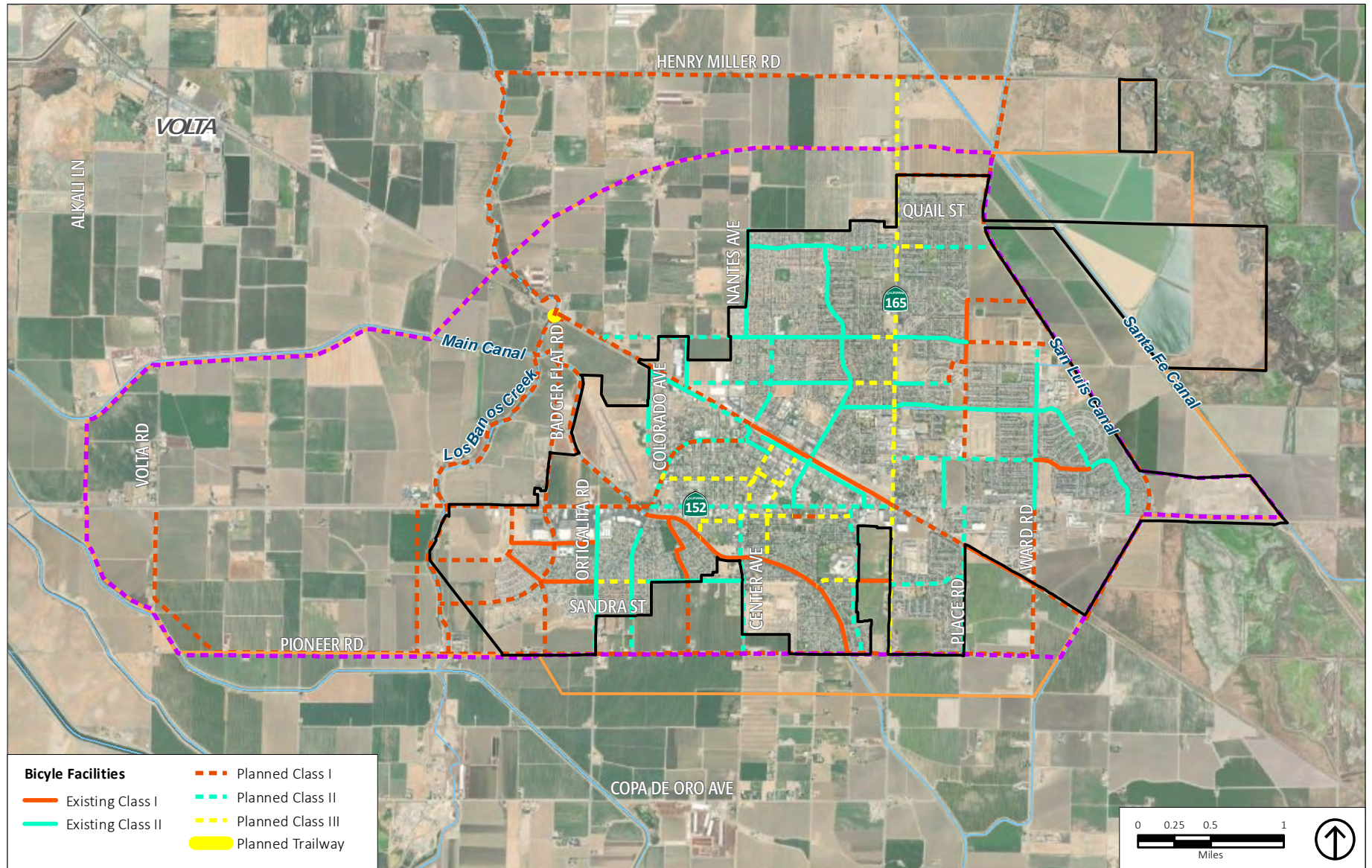
Pedestrians are served by sidewalks that are located on arterials, collectors, and most local roadways in the city. According to the Los Banos Bicycle-Pedestrian Plan, 95 percent of the roadways in Los Banos have sidewalks. Crosswalks with pedestrian call-buttons are provided at signalized intersections, and school crossings are provided at a number of elementary schools. In 2017, a high-intensity activated crosswalk was installed across Mercey Springs Road at Scripps Drive in front of Los Banos High School. The Rail Corridor Trail and HG Fawcett Parkway are specifically reserved for pedestrians and bicyclists and provide an alternative to traveling along high-volume vehicular streets.⁹

⁷ Ride Sharing: Dibs, Calvans & Enterprise | Merced County Association of Governments, CA (mcagov.org). Last accessed March 1, 2022.

⁸ Shared Lane Markings (SLMs), or “sharrows,” are road markings used to indicate a shared lane environment for bicycles and automobiles.

⁹ City of Los Banos, 2007. *Los Banos General Plan Draft EIR*, page 56, September.

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Source: Merced County, 2019; PlaceWorks, 2022.

City Limit Proposed Urban Growth Boundary (UGB) Proposed Sphere of Influence (SOI)

Figure 4.15-2
Existing and Planned Bicycle Facilities

Los Banos Municipal Airport

The Los Banos Municipal Airport is located within the city limits of Los Banos in the western part of the city. The airport is between SR-152 and Ingomar Grade Road, west of Downtown and directly adjacent to the Central California Irrigation District Main Canal. It covers 125 acres and contains one paved runway 3,800 feet long. The airport is owned by the City of Los Banos and operated through the Public Works Department.

The airport was developed in 1940 and has historically been used for general aviation, which includes all aviation activities other than commercial passenger flights, commuter/air taxi, and military uses. General aviation activity typically includes single-engine and small twin-engine aircraft holding six or fewer people. The Los Banos Municipal Airport is the third largest and third most active airport in the county. The FAA reported that as of 2017, an average of 21 planes were based at the Los Banos Municipal Airport over the past 5 years, and the airport saw a total of 16,000 “aviation activities,” which could include local users, travelers passing through, emergency operations, etc. The City is considering the relocation of the airport to a site outside the EIR Study Area to reduce current and future conflicts with surrounding land uses.

4.15.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in a significant impact related to transportation if it would:

1. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
2. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).¹⁰
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
4. Result in inadequate emergency access.
5. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to transportation.

The transportation impact analysis methodology includes a combination of quantitative and qualitative evaluations of the roadway, bicycle, pedestrian, and transit components of the transportation system. The following describes the methodology and thresholds for determining impact significance for standards 1 through 4 listed above.

¹⁰ CEQA Guidelines Section 15064.3, subdivision (b) refers to the discontinuation of vehicle level of service (LOS) as an impact metric for transportation analysis and instead recommends the use of vehicle miles traveled (VMT); this section gives lead agencies discretion to choose the most appropriate methodology to evaluate a project’s VMT.

4.15.2.1 STANDARD 1. CONFLICTING WITH CIRCULATION POLICY

The proposed General Plan includes goals, policies, and actions that address roadways, bicycle and pedestrian circulation networks, and transit facilities that would serve residents and visitors to Los Banos traveling by car, bus, shuttle, bicycling, and walking. The analysis of potential conflicts with applicable planning efforts related to roadway, transit, bicycle, and pedestrian facilities was based on an assessment of other programs, plans, policies, or ordinances with which the proposed General Plan and, through its implementation, proposed facilities under the proposed General Plan would interact. The proposed General Plan would have a significant impact on transit, bicycles, or pedestrians if it would conflict with adopted policies, plans, or programs regarding these systems, or create or exacerbate disruptions to the performance or safety of these systems.

4.15.2.2 STANDARD 2. CONSISTENCY WITH CEQA GUIDELINES SECTION 15064.3(B)

The proposed General Plan would result in a significant transportation impact if it would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)(1), which states for land use projects, “Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact.” CEQA Guidelines Section 15064.3(b)(4) states, “A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence.”

VMT can be presented as total VMT, or as efficiency metrics expressed in VMT per capita, VMT per employee, and VMT per service population (residents plus employees) on a typical day. Total VMT represents all VMT generated in the city, while VMT per capita (resident), or employee is an efficiency metric that represents VMT generated on a typical day per person who lives and/or works in the city. VMT per capita is measured to evaluate residential projects, VMT per employee for employment projects, and VMT per service population for a combination of land uses.

The OPR Technical Advisory includes specifications for VMT methodology and recommendations for significance thresholds, screening of projects that may be presumed to have less-than-significant impacts, and mitigation. Lead agencies ultimately have the discretion to set or apply their own significance thresholds, provided they are based on significant evidence. The City of Los Banos is currently participating in a regional effort, led by MCAG, to prepare a SB 743 Implementation Plan that will include identifying and establishing project screening criteria, methodologies for estimating project specific VMT, regional and local thresholds, and VMT mitigation strategies.¹¹ However, as of the preparation of this EIR, the MCAG process is not yet complete, and the regional SB 743 Implementation Plan is not final. Accordingly, in the interim, the analysis in this EIR is based on the guidance provided in the OPR Technical Advisory and finds that VMT impacts for service population (residents plus employees) would be

¹¹ Merced County Association of Governments, <https://mcagov.org/365/SB743-Regional-Guidelines-and-Toolkit>, accessed on May 26, 2022.

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significant if it results in VMT that is more than 15 percent below the region's average VMT per service population as of 2021 (baseline). For the purpose of this analysis, the applicable region is Merced County.

4.15.2.3 STANDARD 3. ROADWAY DESIGN HAZARDS

The proposed project is an overarching plan to guide long-term development within the EIR Study Area. Future potential development could include design features related to roadways and sidewalks, and buildings and structures, that could create hazardous conditions for automobile drivers, bicyclists, and pedestrians. Any design feature or roadway pattern that would cause hazardous driving conditions would be considered a significant impact.

4.15.2.4 STANDARD 4. EMERGENCY ACCESS.

Future potential development under the proposed General Plan 2042 would alter land use patterns and increase travel demand on the existing transportation network that may influence emergency access. Obstruction of access for emergency response vehicles or evacuation routes established in emergency response plans would be considered a significant impact.

4.15.3 IMPACT DISCUSSION

TRAN-1	Implementation of the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
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As discussed in Section 4.15.1.2, *Regulatory Framework*, programs, plans, and policies addressing circulation in EIR Study Area include the Complete Streets Act, MCAG's 2018 RTP/SCS, the *Merced County Regional Bicycle Transportation Plan*, and the Los Banos Bicycle-Pedestrian Plan. In general, the overarching goals of these policy documents are to ensure a safe, efficient, and accessible multi-modal transportation network for all users that also reduces VMT to improve air quality and reduce GHG emissions.

As shown in Chapter 4.8, *Greenhouse Gas Emissions*, 73 percent of GHG emissions in Los Banos originate from vehicle trips generated by Los Banos residents and businesses (i.e., the transportation sector). The California Air Resources Board recognizes that reducing VMT is a key objective to meeting California's GHG emission reduction goals. The greatest potential for reducing GHG emissions in Los Banos is to reduce transportation-related emissions through measures that help to reduce vehicular trips and increase use of non-automobile modes of transportation (i.e., transit, bicycle, and pedestrian modes).

Transit

As described in Section 4.15.1.2, *Existing Conditions*, transit services in the EIR Study Area are provided by The Bus, The Micro Bus, a Dial-A-Ride service for paratransit passengers, and Greyhound. Future potential development under the proposed General Plan 2042 would contribute to an increased use of transit in the EIR Study Area due to growth in population and employment.

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While growth within the EIR Study Area would contribute to an increased use of transit, the proposed Circulation (C) Element includes goals, policies, and actions that require local planning and development decisions to consider impacts to transit. The following General Plan goals, policies and actions would directly and indirectly result in improving the transit network and support an increase in transit use, thus supporting regional goals to reduce VMT and GHG emissions, as well as support programs, plans, ordinances, or policies addressing the circulation system.

- **Goal C-1.** Promote safe and efficient vehicular circulation for all modes and users.
 - **Policy C-P1.1.** Plan, design, and maintain complete streets in Los Banos, which balance safe access to all users, including drivers, pedestrians, cyclists, and people of all ages and abilities, and which integrates all appropriate modes of transportation into an effectively functioning system.
 - **Policy C-P1.2.** Require all new developments to provide right-of-way and improvements consistent with the General Plan street designations and City cross-street section standards.
- **Goal C-3.** Provide a wide variety of transportation alternatives and modes to serve all residents and businesses to enhance the quality of life.
 - **Policy C-P3.1.** Promote the use of public transit for daily trips to schools, employment, and medical appointments.
 - **Policy C-P3.2.** Work with Merced County Transit to situate transit stops and hubs at locations that are convenient for transit users and promote increased transit ridership through the provision of shelters, benches, bike racks on buses, and other amenities.
 - **Policy C-P3.3.** Ensure that new development is designed to make transit a viable choice for residents. Design options include:
 - Have neighborhood focal points with sheltered bus stops;
 - Locate medium- to high-density development near streets served by transit;
 - Link neighborhoods to bus stops by continuous sidewalks or pedestrian paths; and
 - Coordinate with Caltrans and Merced County Transit to identify and implement Park-and-Ride sites with convenient access to public transit.
 - **Action C-A3.1.** Develop a multi-modal transit system map integrating bicycle, public transportation, pedestrian, and vehicle linkages within the city to ensure circulation gaps are being met.
- **Goal C-7.** Provide a safe and accessible multimodal circulation network for disadvantaged communities that improves health and reduces pollution exposure.
 - **Policy C-P7.1.** In capital projects and planning documents, prioritize the implementation of street safety projects in disadvantaged communities.
 - **Policy C-P7.2.** Support improvements to bikeways and sidewalks in disadvantaged communities to make active transportation more accessible, user-friendly, and safer, while decreasing vehicle speeds, congestion, and air pollution.
 - **Policy C-P7.4.** Work with local transit providers to establish and maintain routes and services, including accessible transit services, that provide disadvantaged communities with convenient

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access to employment centers, shopping, healthy food outlets, and services. Support extended hours of transit service to serve shift workers.

- **Policy C-P7.5.** Provide convenient ways for residents to notify the City when transit shelters and benches or other seating at transit stops in disadvantaged communities are not in a state of good repair, especially along commercial corridors and near high-density and medium-density housing. The City will relay this information to Merced County Transit.

Implementation of these goals, policies and actions of the proposed General Plan 2042 would improve the transit network and support programs to increase travel by transit. Implementation of General Plan 2042 would not result in conflicts with adopted policies, plans, or actions or otherwise decrease the performance or safety of transit facilities or services.

Bicycle and Pedestrian Facilities

Future potential development from implementation of the proposed General Plan 2042 would contribute to and increase use of bicycle and pedestrian facilities in the EIR Study Area. The purpose of the adopted Los Banos Bicycle-Pedestrian Plan is to improve safety, act on community needs, and improve mobility options for Los Banos residents, workers, and visitors. As stated in the adopted Los Banos Bicycle-Pedestrian Plan, the utilization of the plan will help increase the number of people in Los Banos that travel in the city by walking or bicycling. As described in Section 4.15.1.2, *Regulatory Setting*, the Los Banos Bicycle-Pedestrian Plan provides a prioritized list of 39 projects to improve these facilities in the city. Figure 4.15-2, *Existing and Planned Bicycle Facilities*, shown above, presents the proposed bicycle network.

While growth within the EIR Study Area would contribute to and increase use of bicycle and pedestrian facilities, the proposed Circulation (C) Element includes goals, policies, and actions that require local planning and development decisions to consider impacts to bicycle and pedestrian facilities. The following General Plan goals, policies, and actions would directly and indirectly result in improving the bicycle and pedestrian network and increase bicycle and pedestrian travel and support an increase in transit use thus support regional goals to reduce VMT and GHG emissions, and programs, plans, ordinances, or policies addressing the circulation system.

- **Goal C-1.** Promote safe and efficient vehicular circulation for all modes and users.
 - **Policy C-P1.1.** Plan, design, and maintain complete streets in Los Banos, which balance safe access to all users, including drivers, pedestrians, cyclists, and people of all ages and abilities, and which integrates all appropriate modes of transportation into an effectively functioning system.
 - **Policy C-P1.2.** Require all new developments to provide right-of-way and improvements consistent with the General Plan street designations and City cross-street section standards.
 - **Policy C-P1.3.** Provide for greater street connectivity by:
 - Incorporating in subdivision regulations requirements for a minimum number of access points to existing collector streets or neighborhood streets for each development;
 - Encouraging traffic circles and roundabouts over signals, where feasible;

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- Requiring bicycle and pedestrian connections from cul-de-sacs to nearby public areas and main streets; and
 - Requiring new residential communities on undeveloped land planned for urban uses to provide stubs for future connections to the edge of the property line. Where stubs exist on adjacent properties, new streets within the development shall connect to these stubs.
- **Action C-A1.3.** Adopt updated street standards to reflect complete streets principles, focusing on bicycle and pedestrian safety and multi-modal uses.
- **Goal C-3.** Provide a wide variety of transportation alternatives and modes to serve all residents and businesses to enhance the quality of life.
 - **Policy C-P3.1.** Promote the use of public transit for daily trips to schools, employment, and medical appointments
 - **Policy C-P3.2.** Work with Merced County Transit to situate transit stops and hubs at locations that are convenient for transit users and promote increased transit ridership through the provision of shelters, benches, bike racks on buses, and other amenities
 - **Policy C-P3.3.** Coordinate with Caltrans and Merced County Transit to identify and implement Park-and-Ride sites with convenient access to public transit.
- **Goal C-4.** Promote bicycling and walking as alternatives to the automobile.
 - **Policy C-P4.1.** Develop bicycle lanes, routes, and paths consistent with the Los Banos Bicycle-Pedestrian Plan.
 - **Policy C-P4.2.** Increase bicycle safety by:
 - Sweeping and repairing bicycle lanes and paths on a regular basis;
 - Ensuring that bikeways are delineated and signed in accordance with Caltrans' standards and lighting is provided, where needed;
 - Providing bicycle paths or lanes on bridges and overpasses;
 - Ensuring that all new and improved streets have bicycle-safe drainage grates and are free of hazards, such as uneven pavement and gravel;
 - Providing signage and markings warning vehicular traffic of merging or crossing bicycle traffic where bike routes and paths make transitions into or across roadways; and
 - Working with the Los Banos Unified School District to educate on bicycle safety through programs and classes in schools as part of Safe Routes to Schools.
 - **Policy C-P4.3.** Give bicyclists equal treatment in terms of provisions for safety and comfort on arterials and collectors as vehicles.
 - **Policy C-P4.4.** Require secure and convenient bicycle parking at large commercial and industrial employer sites.
 - **Policy C-P4.5.** Require new development in office parks, commercial districts, and residential neighborhoods to include a series of continuous walkways so they connect to one another.
 - **Policy C-P4.6.** Provide for pedestrian-friendly zones in conjunction with the development, redevelopment, and design of mixed-use neighborhood core areas, the Downtown area, schools, parks, and other high-use areas.

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- Providing intersection “bump outs” to reduce walking distances across streets in the Downtown and other high-use areas;
 - Providing crosswalks at all signalized intersections;
 - Providing landscaping that encourages pedestrian use; and
 - Constructing adequately lit and safe access through subdivision sites.
- **Policy C-P4.7.** Ensure that roadway improvement projects address mobility and accessibility for bicyclists and/or pedestrians.
- **Policy C-P4.8.** Support implementation of the adopted Los Banos Bicycle-Pedestrian Plan in coordination with the County’s Regional Bikeway Plan.
- **Policy C-P4.9.** Reduce driveway conflicts along Pacheco Boulevard consistent with the Pacheco Boulevard Complete Streets Plan.
- **Goal C-7.** Provide a safe and accessible multimodal circulation network for disadvantaged communities that improves health and reduces pollution exposure.
 - **Policy C-P7.1.** In capital projects and planning documents, prioritize the implementation of street safety projects in disadvantaged communities.
 - **Policy C-P7.2.** Support improvements to bikeways and sidewalks in disadvantaged communities to make active transportation more accessible, user-friendly, and safer, while decreasing vehicle speeds, congestion, and air pollution.
 - **Policy C-P7.4.** Work with local transit providers to establish and maintain routes and services, including accessible transit services, that provide disadvantaged communities with convenient access to employment centers, shopping, healthy food outlets, and services. Support extended hours of transit service to serve shift workers.
 - **Policy C-P7.5.** Provide convenient ways for residents to notify the City when transit shelters and benches or other seating at transit stops in disadvantaged communities are not in a state of good repair, especially along commercial corridors and near high-density and medium-density housing. The City will relay this information to Merced County Transit.

Implementation of these goals, policies and actions of the proposed General Plan 2042 would improve the bicycle and pedestrian network and support programs to increase bicycle and pedestrian travel.

Implementation of General Plan 2042 would not result in conflicts with adopted policies, plans, or actions or otherwise decrease the performance or safety of bicycle or pedestrian facilities.

Roadway

Future potential development and the planned expansion of the roadway system under the proposed General Plan 2042 would contribute to an increase in VMT in the EIR Study Area. Also see impact discussion TRAN-2 for further discussion of VMT with respect to the proposed project’s ability to meet the VMT threshold of significance. The proposed General Plan is generally consistent with and would not obstruct the transportation-related goals and policies in the MCAG 2018 RTP/SCS as it continues to encourage a shift away from drive-alone commute vehicle trips, which are a primary contributor to commute GHG emissions and localized transportation impacts. As described in Section 4.15.1.2,

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Regulatory Framework, the MCAG 2018 RTP/SCS seeks to reduce GHG emissions from transportation sources in Merced County through funding transportation improvements such as:

- Increased transit frequency, fare reductions, and express transit;
- Additional ridesharing, vanpooling, and zero-emissions vehicle incentives;
- Aggressive bicycle and pedestrian infrastructure improvements; and
- Passenger rail improvements that shift commuters from cars to trains.

While growth within the EIR Study Area would contribute to and increase use of roadway facilities from automobiles, the proposed Economic Development (ED) Element, Land Use (LU) Element, and the Circulation (C) Element include land use designations, goals, policies, and actions that require local planning and development decisions to consider these impacts. The Land Use Element designates substantial land with the Office/Professional, Employment Park, and Industrial land use designations to drive job growth in Los Banos and reduce the need for Los Banos residents to commute out of the city for work. In addition to the General Plan goals, policies, and action previously listed to promote safe and provide sufficient transit, and bicycle and pedestrian facilities, which also serve to reduce automobile use and decrease VMT, the following General Plan goals, policies, and actions would also directly and indirectly result in reducing VMT by bringing jobs and services to Los Banos and locating them in close proximity to residential areas, and thus would support regional goals to reduce VMT and GHG emissions, as well as support programs, plans, ordinances, or policies addressing the circulation system.

- **Goal ED-1.** Help create jobs and improve job quality for existing and future Los Banos residents.
 - **Policy ED-P1.1.** Facilitate the development of new businesses and/or expansion of existing businesses through site availability, infrastructure investment, workforce preparedness, branding, and marketing.
 - **Action ED-A1.1.** Actively promote Los Banos as a good place for business through the following:
 - Continue to attend trade shows, retail conventions or other gatherings for targeted industries;
 - Regularly schedule face-to-face meetings between City representatives and leaders of key local businesses for business retention purposes;
 - Prepare effective and informative collateral materials to distribute to interested businesses;
 - Publish an inventory of assets that Los Banos offers in newsletters and on the web;
 - Create materials to keep businesses and industry groups informed of local services using electronic newsletter, postcards, and specialized promotional packages.
- **Goal ED-2.** Seek and promote particular businesses or development projects that provide needed local goods, services, employment, or those that enhance the city's physical and social well-being and quality of life.
 - **Action ED-A2.1.** Prepare an outreach strategy for targeted industries, focusing on:
 - Industries/businesses that indicate an interest in, and/or represent a good geographical fit with the San Joaquin Valley, Merced County, and/or Los Banos;
 - Industries whose labor requirements match the occupations and skills of the local labor force and local educational institutions;
 - Businesses that rely on ground and air transportation;
 - Businesses that can add to or leverage existing industrial clusters or firms;

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- Public or private enterprises appropriate to strengthening the health/education/services sector, or those that would improve the quality of life for residents and help to attract higher-income households to Los Banos; and
 - Partnerships with area educational institutions to assist with training for a new workforce.
- **Action ED-A2.2.** Continue to have economic development staff contact and visit target companies and industry associations, including businesses, real estate brokers, and site consultants.
- **Action ED-A2.3.** In partnership with the Chamber of Commerce and the Merced County Economic Development Team, continuously track local, state, and national economic trends to identify new candidate businesses/industries for Los Banos.
- **Goal LU-1.** Provide for orderly, well-planned, and balanced development.
 - **Policy LU-P1.1.** Ensure that new development provides for infrastructure, schools, parks, neighborhood shops, and community facilities in close proximity to residents.
 - **Policy LU-P1.3.** Require that any land requested to be annexed be contiguous with the existing city limits, within the Urban Growth Boundary, and within the Sphere of Influence.
- **Goal LU-2.** Foster neighborhoods with exceptional amenities and design, broad-based opportunity, and a shared sense of identity.
 - **Policy LU-P2.11.** Locate a diverse range of civic, institutional, and community land uses in close proximity to neighborhoods, where feasible.
 - **Policy LU-P2.15.** Permit childcare centers in all districts; subject to appropriate permitting requirements, and develop criteria for incentives for childcare facilities, including density bonuses according to State law.
- **Goal LU-5.** Provide residents with excellent employment and shopping opportunities.
 - **Policy LU-P5.2.** Allow flexible planning for larger-scale employment-generating businesses, technology-based businesses, light industrial, professional offices, and other businesses wishing to locate in Los Banos.
 - **Policy LU-P5.3.** Locate regionally oriented commercial uses on major roadway corridors. Locate community and neighborhood-oriented uses within planned communities and neighborhoods.
 - **Policy LU-P5.6.** Evenly distribute neighborhood retail centers in new development areas and encourage a mix of uses to offer both choice and convenience for shoppers and residents.
 - **Policy LU-P5.7.** Encourage existing neighborhood centers to expand to their maximum potential through reuse, rehabilitation, and infill development.
- **Goal C-2.** Make efficient use of existing transportation facilities and, through coordinated land use planning, strive to improve accessibility to shops, schools, parks, and employment centers for all users, and reduce total vehicle miles traveled per household to minimize vehicle emissions and save energy.
 - **Policy C-P2.5.** Achieve State-mandated reductions in vehicle miles traveled (VMT) by requiring development and transportation projects to meet specific VMT metrics. In the event a proposed

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project does not meet these metrics, require measures to reduce the additional VMT associated with the project, consistent with the City's adopted thresholds.

- **Policy C-P2.6.** Reduce vehicle miles traveled (VMT) through measures such as improvements to public transportation and carpooling, and offering safe routes for pedestrians and bicyclists.
- **Policy C-P2.8.** Promote and encourage carpool, vanpool, and guaranteed ride home with employers to discourage single-occupancy vehicles while encouraging alternative modes of transportation, such as carpooling.
- **Action C-A2.1:** Participate in regional efforts to develop guidelines for calculating the projected VMT associated with future development projects and transportation improvements. The guidelines also should cover administration, screening criteria, and appropriate Transportation Demand Management measures and monitoring procedures. All VMT metrics should be routinely reassessed and revised as needed to reflect changing conditions.
- **Action C-A2.2.** To reduce VMT the City shall study the feasibility of a Trip Reduction Ordinance (TRO) to support achievement of the VMT reduction standard that reflects General Plan 2042 Policy C-P2.5.

Implementation of these goals, policies, and actions of the proposed General Plan 2042 would improve the support programs to reduce VMT. Implementation of General Plan 2042 would not result in conflicts with adopted policies, plans, or actions or otherwise decrease the performance or safety of roadway facilities or services.

In summary, the proposed General Plan supports public transit, bicycle improvements, and improvements to pedestrian facilities, and it would promote and direct the City to (1) expand the pedestrian, bicycle, and transit network, (2) close gaps in the network, and (3) coordinate with regional agencies to improve the transit network. These policies support the regulatory programs that address the circulation system in the EIR Study Area. For example, complete streets are addressed through a layered network approach, consistent with the State's Complete Streets Act. The proposed General Plan supports the implementation of the MCAG 2018 RTP/SCS by promoting a range of jobs and services in Los Banos and by ensuring that shopping, schools, parks, and civic uses are located in each neighborhood so residents don't have to drive to reach these daily destinations. The proposed General Plan 2042 policies also promote bringing jobs to Los Banos so employed residents who currently commute elsewhere to work can work in Los Banos to support the reduction of VMT. The proposed General Plan 2042 also designates land for residential development at a range of densities, and it requires new neighborhoods to include a mix of housing types, so that there is housing affordable to all income levels in Los Banos, and lower-wage workers can find housing in Los Banos and avoid long commutes to local jobs. As such, the proposed project is consistent with the existing adopted policies, plans and programs regarding public transit, bicycle, or pedestrian facilities and consequently reducing VMT and GHG emissions. Accordingly, impacts would be *less than significant*, and no mitigation measures are required.

Significance without Mitigation: Less than significant.

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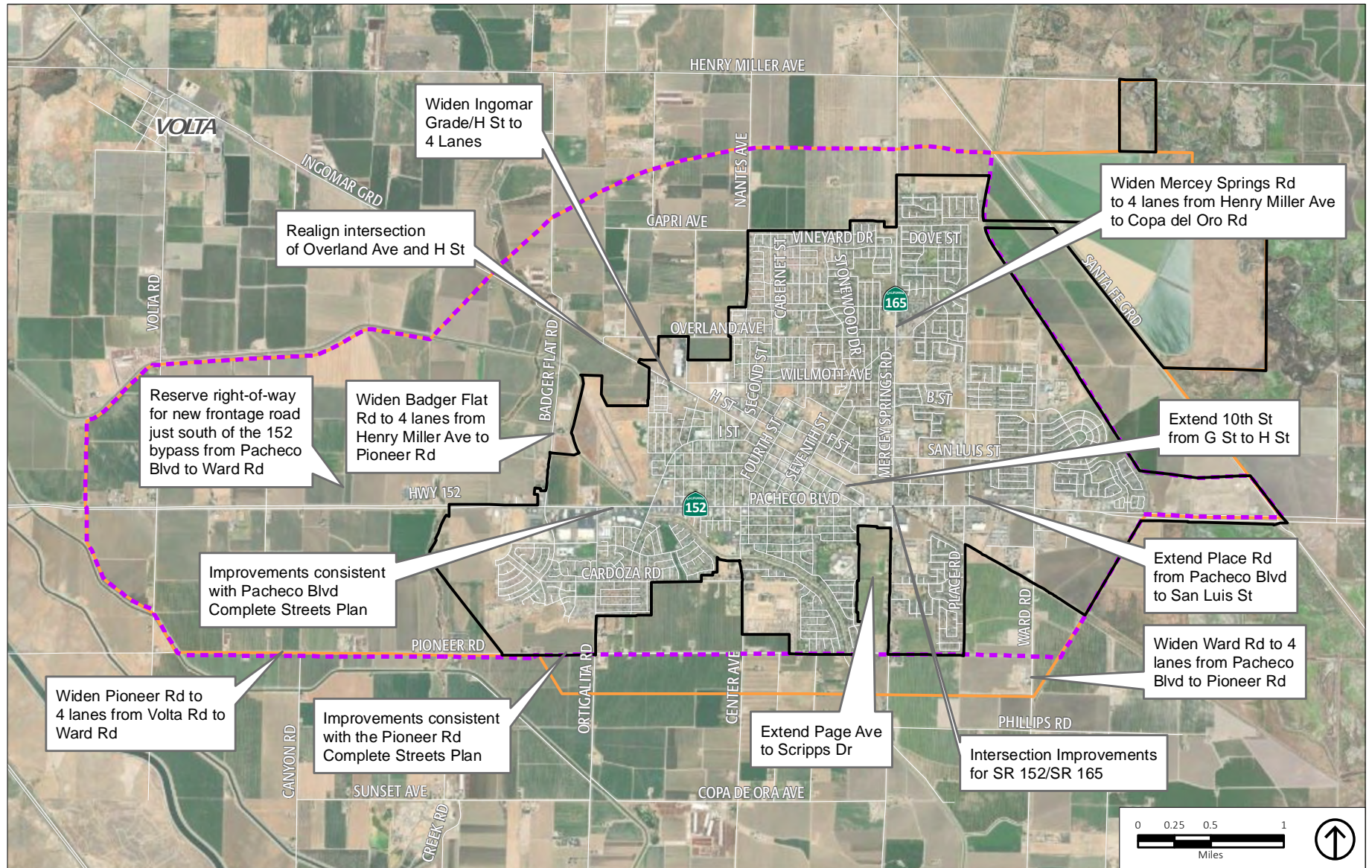
TRAN-2 Implementation of the proposed project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

As previously discussed, CEQA Guidelines Section 15064.3(b) states for land use projects, “Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact.” CEQA Guidelines Section 15064.3(b)(4) states, “A lead agency has discretion to choose the most appropriate methodology to evaluate a project’s vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure.” As such, VMT impacts, measured by service population (residents plus employees), would be significant if it results in VMT per service population that is more than 15 percent below the region’s average VMT per service population as of the 2021 baseline. For the purpose of this analysis, the applicable region is Merced County. VMT was calculated for the EIR Study Area, which includes the city limits and the proposed SOI. The baseline and future VMT was calculated using the *Three-County Travel Demand Model* maintained by the San Joaquin County Council of Governments (SJCOC). The *Three-County Travel Demand Model* covers Merced County, San Joaquin County, and Stanislaus County. The *Three-County Travel Demand Model* was updated for use in developing future volume forecasts for this project. The socio-economic data such as population, housing units, and employment were adjusted in the *Three-County Travel Demand Model* to match the proposed project’s land use assumptions. The baseline (2021) and buildout estimates (2042) for housing, population, and jobs are provided in in Table 3-3, *Proposed 2042 Buildout Projections in the EIR Study Area*, shown in Chapter 3, Project Description, of this Draft EIR. In addition, the circulation network in the *Three-County Travel Demand Model* was reviewed to ensure the assumptions matched the proposed General Plan 2042. To obtain VMT under baseline (2021) and long-range conditions (2042), the *Three-County Travel Demand Model* was run for the model base year 2015 and the future 2042 scenario with the proposed General Plan land use and circulation network. The 2021 baseline VMT was obtained by interpolating results from the base year 2015 and future year 2042.

The proposed General Plan 2042 Circulation Element’s circulation map is shown on Figure 4.15-3, *Planned Improvements*, and the proposed roadway network improvements are shown on Figure 4.15-4, *Planned Roadways 2042*. The Circulation Element includes the proposed roadway network functional classifications for existing and future roadway segments.

The SR-152/Los Banos Bypass has long been planned to alleviate congestion on Pacheco Boulevard through Los Banos. The SR-152/Los Banos Bypass would be a four-lane expressway from west of Los Banos, passing north of the city, then south again paralleling the Santa Fe Grade to meet up with the existing SR-152 alignment. The SR-152/Los Banos Bypass was included in the City’s current General Plan; it was also included in the MCAG 2014 RTP/SCS as a recommended regional improvement project. However, funding for the project has been extremely challenging to identify. The MCAG 2018 RTP/SCS acknowledged that funding is not currently in place for the SR-152/Los Banos Bypass, and the MCAG 2022 RTP/SCS currently being prepared is likely to acknowledge that the SR-152/Los Banos Bypass project is essentially on hold until or unless funding can be found. Therefore, the proposed SR-152/Los Banos Bypass project is not anticipated to be implemented in the horizon year of the General Plan and was not included in the modeling. However, General Plan 2042 will continue to reserve land for a possible future bypass through the SR-152 Bypass designation.

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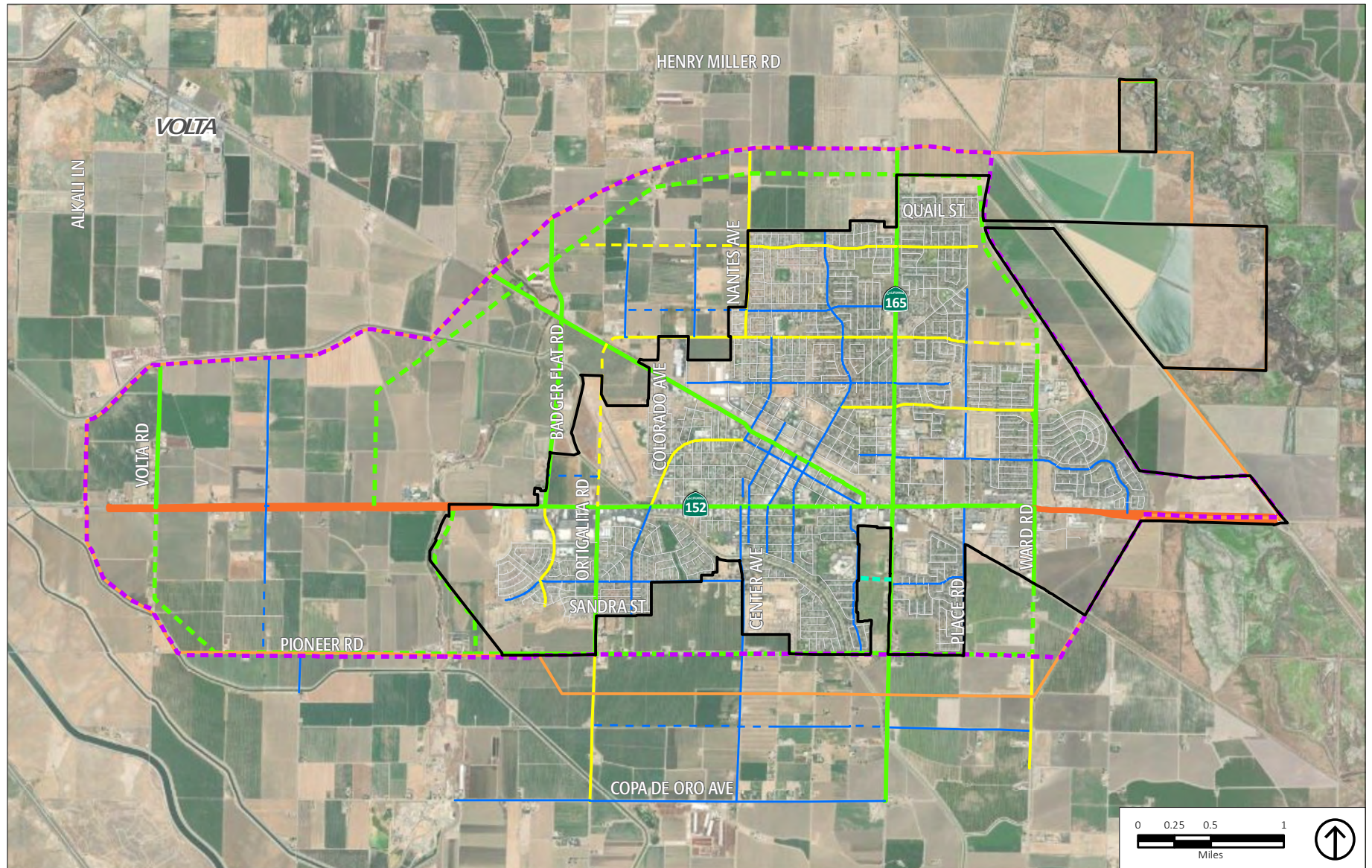
Source: Merced County 2019; PlaceWorks, 2022.

City Limit Proposed Urban Growth Boundary (UGB) Proposed Sphere of Influence (SOI)

PLACEWORKS

Figure 4.15-3
Planned Improvements

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Source: Merced County 2019; PlaceWorks, 2022.

- | | | | |
|--------------------------------------|----------------|------------------------|------------------------|
| City Limit | Local | Minor Arterial | Planned Minor Arterial |
| Proposed Urban Growth Boundary (UGB) | Highway | Collector | Planned Collector |
| Proposed Sphere of Influence (SOI) | Major Arterial | Planned Major Arterial | Planned Local Road |

Figure 4.15-4
Planned Roadways 2042

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In the interim, the Pioneer Road Complete Streets Plan calls for Pioneer Road to relieve some of the congestion on Pacheco Boulevard by widening Pioneer Road, along the southern edge of Los Banos, from two lanes to a four-lane expressway and improving north-south connections to Pioneer Road. Other future roadways have been included to serve new development and to include roadway projects from the MCAG 2018 RTP/SCS. Key additions include:

- New roadways including a frontage road along the northern boundary of the SOI.
- Completion of Pioneer Road and its proposed complete streets plan, including extensions of Ward Road, Ortigalita Road, and Vineyard Drive, Overland Avenue.

Table 4.15-1, *Daily Vehicle Miles Traveled for Los Banos and the Proposed Sphere of Influence*, summarizes the VMT for the baseline (2021), the applicable threshold of significance, and the future (2042) VMT with the proposed General Plan 2042.

TABLE 4.15-1 DAILY VEHICLE MILES TRAVELED FOR LOS BANOS AND THE PROPOSED SPHERE OF INFLUENCE

LOS BANOS	VMT per Service Population
2021 Baseline	29.0
General Plan 2042	26.2
THRESHOLD	
2021 Baseline (Merced County Regional Average)	27.1
15% Below Baseline	23.0

Source: Kittelson and Associates, Inc. 2022.

As shown in Table 4.15-1, *Daily Vehicle Miles Traveled (VMT) for Los Banos and the Sphere of Influence*, the VMT per service population is forecast to decline from 29.0 VMT per service population at the 2021 baseline to 26.2 VMT per service population under 2042 conditions with the proposed project, even though both population and employment would increase substantially over existing levels. However, this would not meet the VMT threshold established by the City for this EIR, consistent with OPR guidance, which is a reduction of 15 percent below the 2021 baseline regional average for service population, or 23.0 VMT per service population. The reduction from 27.1 VMT per service population under Merced County regional baseline to 26.2 VMT per service population under the General Plan 2042 is equivalent to a reduction of 12.2 percent in VMT per service population. As such, while the proposed General Plan 2042 results in a reduction in total VMT per service population from existing conditions, it exceeds the VMT threshold.

The proposed General Plan includes policies designed to reduce vehicle travel and VMT. As described in impact discussion TRAN-1, the proposed Economic Development (ED) Element, Land Use (LU) Element, and the Circulation (C) Element include land use designations, goals, policies, and actions that require local planning and development decisions to consider these impacts from vehicle travel and VMT. The General Plan goals, policies, and actions listed in impact discussion TRAN-1 would directly and indirectly result in the reduction of VMT by incentivizing alternative modes of transportation; creating safe environments for pedestrians and bicyclists; promoting a range of jobs and services in Los Banos; ensuring that shopping, schools, parks, and civic uses are located in each neighborhood so residents don't have to

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drive to reach these daily destinations; and bringing jobs to Los Banos so employed residents who currently commute elsewhere to work can work in Los Banos to reduce VMT and thus support regional goals to reduce VMT and GHG emissions.

The City considered OPR guidance when developing the policy direction of the General Plan 2042. The City recognizes that VMT reductions may be achieved through the implementation of individual projects in the future and has included General Plan Policy C-P2.5, which requires future development and transportation projects to meet specific VMT metrics. The analysis for the proposed General Plan 2042 identified a 15 percent reduction in the VMT efficiency metric from regional baseline conditions as the current VMT threshold, consistent with OPR guidance.

By implementing the policies listed in impact discussion TRAN-1, the proposed project would result in a transportation system that allows greater utilization of the roadway system, which would minimize the need to expand existing capacity, so that the City can focus on building complete streets, improving walking and biking as viable travel options, and making transit more effective. These goals are directly related to the City's desires to improve community health, create livable neighborhoods, reduce air pollution, and reduce GHG emissions. A key part of these changes is a shift in CEQA from automobile level-of-service standards to VMT embedded in Policy C-P2.5, which will require new development projects to reduce VMT. Following the conclusion of the MCAG SB 743 Implementation Plan, the City expects to adopt a new VMT reduction threshold, and new land use plans or development projects will be required to demonstrate that VMT produced by the proposed project meets the applicable VMT reduction threshold.

VMT reduction depends on factors such as density, land use mix, characteristics of the circulation system, and transit service relative to driving, so VMT reduction strategies for suburban and rural areas must be customized to that context. Vanpool and carpool programs are one of the most effective programs to promote reductions in VMT in communities outside large metropolitan areas. The California Air Pollution Control Officers Association (CAPCOA) 2010 *Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures*, includes VMT reduction measures that individual projects can use to achieve additional reductions beyond those incorporated in the proposed project. According to CAPCOA, "strategies likely to have the largest VMT reduction in rural areas include vanpools, telecommute or alternative work schedules, and master planned communities (with design and land use diversity to encourage intra-community travel)."¹² Vanpool and carpool programs that serve cities in Merced County include Dibs, CalVans (sponsored by the California Vanpool Authority) and Commute with Enterprise. Future development projects consistent with the proposed General Plan 2042 would need to consider improvements to public transportation and carpooling, consistent with those identified in the Circulation Element Policy C-P2.6 and Policy C-P2.8. According to CAPCOA, the maximum reduction in VMT by applying transportation strategies for suburban areas is 15 percent. Therefore, a reduction of 12.2 percent in VMT per service population is feasible.

¹² California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures*, 2010.

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While implementation of these goals, policies, and actions in the proposed General Plan 2042 would support VMT reduction, as shown in Table 4.15-1, the VMT per service population by 2042 for the proposed General Plan 2042 would not be 15 percent below the baseline VMT for the Merced County region. As such, the project impact on VMT per service population is considered *potentially significant*.

Impact TRAN-2: Implementation of the General Plan 2042 would result in a significant vehicle mile traveled (VMT) impact for VMT per service population due to forecast land use growth through 2042, based on a comparison of the VMT rate increment for VMT per service population to the corresponding average baseline rates for the Merced County region.

Significance without Mitigation: Significant and unavoidable. Implementation of the General Plan 2042 policies and actions would ensure that VMT are reduced to the degree feasible. Policy C-P2.5 requires the City to achieve State-mandated VMT reductions by requiring development and transportation projects to meet specific VMT metrics at the project level, and in the event a proposed project does not meet these metrics, require measures to reduce the additional VMT associated with the project, consistent with City's adopted thresholds. Policy C-P2-6 requires the City to reduce VMT by pursuing improvements to public transportation and carpooling and offering safe routes for pedestrians and bicyclists. Action C-A2.1 requires the City to participate in regional efforts to develop guidelines for calculating the projected VMT associated with future development projects and transportation improvements. The guidelines also should cover administration, screening criteria, and appropriate Transportation Demand Management measures and monitoring procedures, and routinely reassessed and revised as needed to reflect changing conditions. Action C-A2.2 requires the City to reduce VMT and the City shall study the feasibility of a Trip Reduction Ordinance to support achievement of the VMT reduction standard that reflects General Plan 2042 Policy C-P2.5. In addition, as listed in impact discussion TRAN-1, the City has numerous policies to promote safe and user-friendly transit and improve the bicycle and pedestrian network in Los Banos, all which would serve to promote alternative forms of transportation and reduce VMT.

Impacts for VMT per service population are considered significant and unavoidable. This is because even with the proposed General Plan 2042 policies and actions, the City of Los Banos may not achieve the overall VMT threshold reduction level as the effectiveness of VMT reductions strategies is not certain. This program-level land use impact for VMT per service population does not preclude the finding of less-than-significant impacts for subsequent development projects that achieve applicable VMT thresholds of significance. However, due to the programmatic nature of the proposed project, no additional mitigation measures are available, and the impact is considered *significant and unavoidable*.

TRAN-3	Implementation of the proposed 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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Future potential development under the proposed General Plan 2042 would modify the existing transportation network to accommodate existing and future users that could change existing travel

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patterns or traveler expectations. The proposed General Plan 2042 includes a project to realign the intersection of Overland Avenue and H Street in order to improve the safety of that intersection, as well as several other planned roadway improvements and implementation of the adopted Los Banos Bicycle-Pedestrian Plan. The City requires the modification of existing public facilities or that the construction of new facilities comply with the applicable design standards contained in the California Manual on Uniform Traffic Control Devices and the California Highway Design Manual, which have been developed to minimize the potential for conflicts or collisions.

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. Prior to the construction of streets, highways, alleys, traffic signals, and related public improvements the City of Los Banos Public Works Department reviews and needs to approve plans according to construction standards and specifications.

While growth within the EIR Study Area would result in changes to the existing transportation network, the General Plan 2042 Circulation (C) Element contains goals, policies, and actions that require local planning and development decisions to consider impacts to transportation facilities. The following General Plan goals, policies, and actions would support the design of a transportation system that is safe for all modes of travel. The following describes the goals, policies and actions that directly and indirectly result in improving the transportation network.

- **Goal C-1.** Promote safe and efficient vehicular circulation for all modes and users.
 - **Policy C-P 1.1.** Plan, design, and maintain complete streets in Los Banos, which balance safe access to all users, including drivers, pedestrians, cyclists, and people of all ages and abilities, and which integrates all appropriate modes of transportation into an effectively functioning system.
 - **Action C-A1.2.** Adopt street standards that provide flexibility in design, especially in residential neighborhoods. Revise right-of-way and pavement standards to reflect adjacent land use and/or anticipated traffic and permit reduced right-of-way dimensions where necessary to maintain neighborhood character.
 - **Action CA.1.3.** Adopt updated street standards to reflect complete streets principles, focusing on bicycle and pedestrian safety and multi-modal uses.
- **Goal C-2.** Make efficient use of existing transportation facilities and, through coordinated land use planning, strive to improve accessibility to shops, schools, parks, and employment centers for all users, and reduce total vehicle miles traveled per household to minimize vehicle emissions and save energy.
 - **Policy C-P2.6.** Reduce vehicle miles traveled (VMT) through measures such as improvements to public transportation and carpooling and offering safe routes for pedestrians and bicyclists.
- **Goal C-4.** Promote bicycling and walking as alternatives to the automobile.
 - **Policy C-P 4.2.** Increase bicycle safety by:
 - Sweeping and repairing bicycle lanes and paths on a regular basis;
 - Ensuring that bikeways are delineated and signed in accordance with Caltrans' standards, and lighting is provided, where needed;

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- Providing bicycle paths or lanes on bridges and overpasses;
- Ensuring that all new and improved streets have bicycle-safe drainage grates and are free of hazards, such as uneven pavement and gravel;
- Providing signage and markings warning vehicular traffic of merging or crossing bicycle traffic where bike routes and paths make transitions into or across roadways; and
- Working with the Los Banos Unified School District to educate on bicycle safety through programs and classes in schools as part of Safe Routes to Schools.
- **Policy C-P 4.3.** Give bicyclists equal treatment in terms of provisions for safety and comfort on arterials and collectors as vehicles.
- **Goal C-7.** Provide a safe and accessible multimodal circulation network for disadvantaged communities that improves health and reduces pollution exposure.
 - **Policy C-P7.1.** In capital projects and planning documents, prioritize the implementation of street safety projects in disadvantaged communities.
 - **Policy C-P7.2.** Support improvements to bikeways and sidewalks in disadvantaged communities to make active transportation more accessible, user-friendly, and safer, while decreasing vehicle speeds, congestion, and air pollution.
 - **Policy C-P7.4.** Work with local transit providers to establish and maintain routes and services, including accessible transit services, that provide disadvantaged communities with convenient access to employment centers, shopping, healthy food outlets, and services. Support extended hours of transit service to serve shift workers.

Implementation of these goals, policies, and actions 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 General Plan 2042 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 and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

TRAN-4	Implementation of the proposed project would not result in inadequate emergency access.
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Future potential development which could occur during the buildout of the proposed General Plan 2042 would alter land use patterns and increase travel demand on the transportation network that 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. Prior to the construction of streets, highways, alleys, traffic signals, and related public improvements, the City of Los Banos Public Works Department reviews and needs to approve plans according to construction standards and specifications to ensure adequate emergency access.

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While growth within the EIR Study Area would result in changes to land use and the existing transportation network, the General Plan 2042 Land Use (LU) Element, Circulation (C) Element, and Safety and Noise (S) Element contain goals, policies, and actions that require local planning and development decisions to consider improvements to transportation efficiency, mobility, and access including developing and updating emergency response plans. The following describes the goals, policies, and actions that directly and indirectly result in providing emergency access.

- **Goal LU-1.** Provide for orderly, well-planned, and balanced development.
 - **Policy LU-P1.7.** Ensure that new development provides for infrastructure, schools, parks, neighborhood shops, and community facilities in close proximity to residents.
 - **Policy LU-P1.11.** Monitor growth rates to ensure they do not overburden the city's infrastructure and services or exceed the amounts analyzed in the General Plan Environmental Impact Report.
- **Goal S-4.** Protect Los Banos' residents and businesses from potential wildfire and structural fire hazards through data-driven decision-making and community planning efforts.
 - **Policy S-P4.1.** Maintain a five- to six-minute response standard for fire service within a 1.5-mile radius of a fire station.
 - **Policy S-P4.2.** Require adequate firefighting infrastructure and access for emergency vehicles in all new development, including adequate street width, vertical clearance on new streets, high-visibility street signs in all conditions, and minimum water pressure necessary for sustained fire suppression.
 - **Policy S-P4.3.** Ensure Fire Department personnel are trained in wildfire prevention, response, and evacuation procedures.
- **Goal S-6.** Minimize the risk of personal injury, property damage, and environmental damage from both natural and human-made disasters and improve natural disaster response capabilities through a variety of emergency preparedness measures.
 - **Policy S-P6.2.** The Merced County Multi-jurisdictional Hazard Mitigation Plan, approved by the Federal Emergency Management Agency (FEMA) in 2021, is incorporated by reference into this Safety Element in accordance with Assembly Bill 2140.
 - **Action S-A6.6.** Develop and adopt an emergency evacuation route network of roadways accounting for how natural hazards could impact the feasibility of each route and work with the County of Merced Office of Emergency Services to ensure that each route connects to regional evacuation routes.

Implementation of these goals, policies, and actions of the proposed General Plan 2042, would address emergency access by considering access routes, developing and updating emergency response plans, and incorporating emergency access considerations in the design of future street improvements. Implementation of General Plan 2042 would not result in inadequate emergency access that may have a significant impact on the environment and impacts would be *less than significant*. No mitigation measures are required.

Significance without Mitigation: Less than significant.

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TRAN-5	Implementation of the proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to transportation.
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Future potential development under the proposed General Plan 2042 would contribute to an increase in VMT in the EIR Study Area as shown in Table 4.15-1. Buildout of the proposed General Plan 2042 is assumed over a 20-year project horizon. Implementation of the proposed General Plan 2042 by the horizon year of 2042 would result in a net increase of people and employees (service population) in the EIR Study Area. As described under impact discussion TRAN-2, implementation of the proposed project would result in a decrease in VMT per service population from existing baseline to horizon year 2042 but would not achieve a reduction of 15 percent below the baseline. Therefore, the impact on VMT would be cumulatively considerable. Mitigation Measure TRAN-1 would apply.

Impact TRAN-5: Implementation of the General Plan 2042 would cumulatively contribute to regional VMT.

Significance with Mitigation: Significant and unavoidable. Even with the General Plan policies and actions described in impact discussion TRAN-2, the City of Los Banos may not be able to achieve the VMT rate reductions specified in Policy C-P2.5 and the effectiveness of VMT reduction strategies is not certain. As such, the cumulative impact on VMT with mitigation is considered *significant and unavoidable*.

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UTILITIES AND SERVICE SYSTEMS

4.16 UTILITIES AND SERVICE SYSTEMS

This chapter describes the potential impacts to the utilities and service system associated with the adoption and implementation of the proposed project. Specifically, water supply, wastewater, stormwater and solid waste are each addressed in separate sections of this chapter. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential utilities and service system impacts, and identifies General Plan policies that could minimize any potentially significant impacts. Impacts related to energy supply and demand are addressed in Chapter 4.6, *Energy*, of this Draft Environmental Impact Report (EIR).

4.16.1 WATER

4.16.1.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

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. This Act authorizes the United States Environmental Protection Agency (USEPA) 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 (SWRCB) 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 (CWA), reduces flooding risks for rural, western, and coastal communities, and addresses significant water infrastructure needs in tribal communities.¹ Additionally, AWIA requires that drinking water systems that serve more than 3,300 people develop or update risk assessments and emergency response plans (ERPs). Risk assessments and ERPs must be certified by the USEPA within the deadline specified by the AWIA.

¹ John Barasso, October 10, 2018, *Congress Passes America's Water Infrastructure Act*, <https://www.barrasso.senate.gov/public/index.cfm/2018/10/congress-passes-america-s-water-infrastructure-act>.

UTILITIES AND SERVICE SYSTEMS

State Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Act (Water Code sections 13000 et seq.), passed in California in 1969 and amended in 2013, is the basic water quality control law for California. Under this Act the SWRCB has authority over State water rights and water quality policy. This Act divided the State into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board (RWQCB) to oversee water quality on a day-to-day basis at the local and regional levels. RWQCBs engage in various water quality functions in their respective regions and regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. The EIR Study Area is within the jurisdiction of the Central Valley RWQCB (Region 5).

California Senate Bill 610 and 221

Senate Bill (SB) 610 and SB 221 were amended in 2001 to assure coordination between the local water and land use decisions to confirm that California cities and communities are provided with an adequate water supply. Specific projects are required to prepare a Water Supply Assessment (WSA). The WSA is composed of information regarding existing and forecasted water demands, as well as information pertaining to available water supplies for the new development. The following projects are required to prepare a WSA:

1. Residential developments consisting of more than 500 homes;
2. A business employing more than 1,000 people or having more than 500,000 square feet;
3. A commercial office building employing more than 1,000 people or having more than 250,000 square feet of floor space;
4. A hotel having more than 500 rooms;
5. An industrial complex with more than 1,000 employees and occupying more than 40 acres of land; or
6. A mixed-use project that requires the same or greater amount of water as a 500 dwelling-unit project.

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. Although SB 610 does not specifically apply to a comprehensive general plan update, the City of Los Banos recognizes that water supply and demand is an important issue and has voluntarily chosen to prepare a WSA to support the General Plan 2042.

California Urban Water Management Planning Act

The California Urban Water Management Planning Act (UWMP) and Section 10620 of the Water Code requires that every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (AF)² of water annually, shall prepare and adopt an

² One acre-foot is the amount of water required to cover 1 acre of ground (43,560 square feet) to a depth of 1 foot.

UTILITIES AND SERVICE SYSTEMS

UWMP and update it every five years. The UWMP describes the service area of the water supplier, projected 20-year water supply and demand for the service area in normal years, dry years and multiple dry years, and water recycling strategies.

Sustainable Groundwater Management Act of 2014

On September 16, 2014, a three-bill legislative package was signed into law, composed of AB 1739, SB 1168, and SB 1319, collectively known as the Sustainable Groundwater Management Act (SGMA).³ 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, in groundwater basins that are designated as medium and high priority, local public agencies and groundwater sustainability agencies (GSAs) must assess conditions in their local groundwater basins and then prepare groundwater sustainability plans (GSPs). Los Banos is located within the Delta-Mendota Subbasin, which has been designated as a high priority groundwater basin and is in critical overdraft.

The City of Los Banos is one of ten GSAs that are part of the San Joaquin River Exchange Contractors (SJREC) GSP Group. A Groundwater Sustainability Plan for the group was prepared in December 2019 and has been adopted.⁴ The Department of Water Resources (DWR) is currently reviewing the plan for adequacy. GSAs for basins in critical overdraft must adopt and begin to implement the GSP by January 31, 2020 and must achieve the sustainability goals by January 31, 2040.

California Plumbing Code

The California Plumbing Code was adopted as part of the California Building Code (CBC) and specifies technical standards of design, materials, workmanship, and maintenance for plumbing systems. The CBC is updated on a three-year cycle; the latest edition is dated 2019. 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 Los Banos adopts the California Plumbing Code under the Los Banos Municipal Code (LBMC), Title 8, Building Regulations, Section 8-1.15, *Adoption of the California Plumbing Code 2019 Edition*.

California Building Code: CALGreen

The California Building Standards Commission adopted the California Green Building Standards Code, also known as CALGreen. As part of the California Building Code, CALGreen is in Part 11 of Title 24. CALGreen establishes building standards for sustainable site development, including water efficiency and water conservation measures. New residential and non-residential development must install water conserving plumbing fixtures and fittings and comply with the Model Water Efficient Landscape Ordinance (MWELo) for outdoor water use. The building efficiency standards are enforced through the local building permit process. The mandatory provisions of CALGreen became effective January 1, 2011. The City of Los Banos

³ Department of Water Resources, Groundwater Information Center, http://www.water.ca.gov/groundwater/groundwater_management/legislation.cfm, accessed on February 5, 2015.

⁴ San Joaquin River Exchange Contractors GSP Group, 2019. *Groundwater Sustainability Plan for the San Joaquin River Exchange Contractors GSP Group in the Delta-Mendota Subbasin (5-022.07)*

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has regularly adopted each new CALGreen update under the LBMC, Title 8, Building Regulations, Section 8-1.12, *Adoption of the California Green Building Standards Code 2019 Edition*.

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.

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 contains many statutes regarding various water-related issues including flood control, water rights, riparian rights, water quality, and the formation of municipal water districts.

Mandatory Water Conservation

Following the declaration of a drought state of emergency in 2014, the SWRCB adopted Resolution No. 2014-0038. In an effort to reduce water usage by 20 percent, the emergency regulation prohibited several activities, including 1) the application of potable water to outdoor landscapes in a manner that causes excess runoff; 2) the use of a hose to wash a motor vehicle except where the hose is equipped with a shut-off nozzle; 3) the application of potable water to driveways and sidewalks; and 4) the use of potable water in non-recirculating ornamental fountains. The SWRCB resolution also directed urban water suppliers to submit monthly water monitoring reports to the SWRCB. After a winter of significant precipitation in 2016, the SWRCB repealed Resolution No. 2014-0038 and adopted Resolution No. 2016-0029 and replaced it with a self-certification process whereby water agencies calculate a water reduction target using historical water supply data and three years of projected water supply shortages.

A new water conservation emergency regulation was enacted in January 2022, due to a drought state of emergency for all counties in California. It became effective on January 18, 2022 and will remain in effect for one year. The regulation prohibits the following activities: 1) outdoor watering that causes runoff onto sidewalks and other areas, 2) washing vehicles without an automatic shutoff nozzle, 3) washing hard surfaces like driveways or sidewalks, 4) street cleaning or construction site preparation, 5) filling decorative fountains, lakes, or ponds, 6) outdoor watering within 48 hours after it rains at least 0.25 inch, and 7) watering ornamental turf on public medians. Additional restrictions are being proposed under Governor Newsom's Executive Order N-7-22 and are expected to be implemented by June 2022.

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

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water use and set reduction targets according to specified standards. It also requires that agricultural water suppliers prepare plans and implement efficient water management practices.

Water Conservation in Landscaping Act of 2006

The Water Conservation in Landscaping Act includes the State of California's Model Water Efficient Landscape Ordinance (MWELo), which requires cities and counties to adopt landscape water conservation ordinances. 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. State law requires all land use agencies, which includes cities and counties, to adopt a WELo that is at least as efficient as the MWELo prepared by the DWR. The 2015 revisions to the MWELo improve water savings in the landscaping sector by promoting efficient landscapes in new developments and retrofitted landscapes. The revisions increase 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. New development projects that include landscape areas of 500 square feet or more are subject to the MWELo. Rehabilitated landscape project with an area equal to or greater than 2,500 square feet are also subject to the MWELo. This applies to residential, commercial, industrial, and institutional projects that require a permit, plan check, or design review.⁵ The City of Los Banos adopts the MWELo Ordinance in LBMC Title 9, *Planning and Zoning*, Chapter 6, *City of Los Banos Water Efficient Landscape Ordinance*.

Sustainable Groundwater Management Grant Program

This program is managed by DWR, which oversees implementation of the SGMA in California. The program is intended to provide funding to GSAs and other responsible entities to promote healthy and sustainable groundwater basins and to promote projects that provide multiple benefits while also improving groundwater supply and quality. The SGM Grant Program funds: 1) the development and implementation of GSPs, 2) projects that promote the sustainable use of groundwater, 3) provide technical assistance to underrepresented communities to identify their risks and needs with respect to SGMA compliance, and 4) research and disseminate information of sustainable groundwater best management practices. The SJREC was awarded a grant through this program to offset the costs of preparing the GSP for disadvantaged communities within the GSP area.

Regional Regulations

Los Banos is not part of regional or countywide water planning efforts. The City's Public Works Division is the sole responsible entity in charge of managing and distributing water resources to its customers. However, there are two important agencies that provide water to the areas surrounding the city, which are described in further detail herein.

⁵ California Department of Water Resources, 2015. Model Water Efficient Landscape Ordinance, accessed at [https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I55B69DB0D45A11DEA95CA4428EC25FA0&originationContext=documenttoc&transitionType=Default&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I55B69DB0D45A11DEA95CA4428EC25FA0&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)), on May 6, 2022.

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Central California Irrigation District

The Central California Irrigation District (CCID) was formed in 1954 and is one of the largest irrigation districts in the Central Valley. CCID's service area extends from Marshall Road to the north in Stanislaus County to Bass Road to the south near Mendota. Irrigation water is provided to the agricultural land surrounding the towns of Crows Landing, Newman, Gustine, Santa Nella, Volta, Los Banos, Dos Palos, Firebaugh, and Mendota. The City of Dos Palos has poor quality groundwater and has an agreement with CCID to transfer 2,500 AFY of surface water for its potable water needs.

The majority of the CCID irrigation water comes from the Central Valley Project (CVP) via the Delta-Mendota Canal. Water is conveyed to the agricultural users via CCID's Main Canal and Outside Canal and the Delta-Mendota Canal. According to the 2016 CCID Water Management Plan, CCID provides water to 155,466 acres of farmland via 1,232 delivery points.⁶ CCID has an exchange contract with the US Bureau of Reclamation for the annual delivery of 532,400 AF of water for non-critical water years and 399,300 AF in critical water years. The US Bureau of Reclamation has determined that 2022 will be a critical year and it is likely that the Delta-Mendota Canal supplies will be insufficient to meet the demands of the exchange contract. In addition, groundwater is pumped and delivered into the system to meet peak crop water demands during the summer months and recycled drain water also supplements CCID's surface water supplies. Groundwater supplies from CCID wells and private wells, as well as recycled drain water, contribute about 65,000 AFY.⁷

Conversion of agricultural land within the EIR Study Area will have implications for CCID. The canal water from CCID that currently irrigates agricultural land within this area will no longer be available, as CCID will require de-annexation from the irrigation district with annexation of land by the City. However, the canal water previously used by lands within the EIR Study Area will still be put to beneficial use elsewhere within CCID's boundaries and may alleviate some of the current water shortages due to the curtailment of CCID's full surface water allotment from the Bureau of Reclamation with the current drought conditions.

Grassland Water District

The Grassland Water District (GWD) delivers water to the 75,000-acre Grassland Resource Conservation District (GRCD), which includes private, State, and federal wildlife refuges. The GWD's primary function is to provide water to the critical wetland habitat within its boundaries. It also delivers water to State and federal wildlife refuges on the behalf of the Bureau of Reclamation.⁸ GWD also manages water deliveries for the 230,000-acre Grassland Ecological Area. The area serves as a wintering and breeding habitat for migratory birds using the Pacific Flyway and is the largest remaining wetland complex in the western United States.

The GRCD area borders Los Banos to the east. It extends north to State Route 140 near Gustine and extends south to CCID's Main Canal. The GRCD consists primarily of privately owned hunting clubs and

⁶ Central California Irrigation District (CCID), 2016. *CCID Water Management Plan 2012-2016*.

⁷ Central California Irrigation District (CCID), 2019. *Oil Station System Improvements, Los Banos, California. WaterSMART Grant Proposal*.

⁸ Grassland Water District, 2022. *Grassland Water District*. Accessed at <http://gwdwater.org/> on May 7, 2022.

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wildlife-beneficial agriculture. The GRCD also includes several State wildlife areas, such as the Volta Wildlife Area, Los Banos Wildlife Area, and Mud Slough, Gadwall, and Salt Slough Units of the North Grasslands Wildlife Management Area. Federal wildlife refuges in the GRCD include portions of the San Luis National Wildlife Refuge.

Because of changes in the natural hydrology of the region, the wetlands now depend on water deliveries. The CCID delivers water to the GRCD through its main canal. The GRCD receives its water supply in two blocks. Level 2 water averages about 125,000 AFY and comes from the CVP. Incremental Level 4 water totals about 55,000 AFY and is acquired from the SJREC through their transfer program and sellers of groundwater.^{9 10}

Local Regulations

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives to ensure the efficient use of water in Los Banos. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions related to water supply and conservation are found in Title 6, *Sanitation and Health*; Title 8, *Building Regulations*; and Title 9, *Planning and Zoning*:

- **Title 6, Chapter 7, *Water System*.** This chapter describes the City's rules, rates, and requirements to connect to the City's water system, and establishes the Public Works Department as the main City agency in charge of water services. It also provides regulations regarding meters, fire hydrants, and fluoridation of the water supply.
- **Title 6, Chapter 8, *Water Well Standards and Cathodic Protection Well Standards*.** This chapter provides the well standards for the construction, rehabilitation, and abandonment of water wells within the city, which are based on DWR's Bulletin No. 74, Water Well Standards: State of California and Supplemental Bulletin 74-90, California Well Standards. A well permit application must be submitted to the Public Works Department for approval along with an associated fee and a copy of the "Water Well Driller's Report" must be submitted to DWR and the Public Works Department within 30 days after completion of the work.
- **Title 6, Chapter 9, *Cross Connection Control*.** Each water user must install an appropriate backflow prevention assembly to prevent the water supply system from contamination due to cross-connections. Only backflow prevention assemblies that have been approved by the City of Los Banos shall be acceptable for installation, and testing of the backflow assemblies shall only be conducted by qualified testers at least annually and immediately after installation, relocation, or repair.

⁹ Grassland Water District, 2022. *Grassland Resource Conservation District*. Accessed at <http://gwdwater.org/grcd/> on May 7, 2022.

¹⁰ US Bureau of Reclamation, 2014. *Environmental Assessment for Grassland Water District Incremental Level 4 Groundwater Acquisition Project*. Level 2 Refuge Water Supplies refer to the historical annual average amount of water the refuges received between 1977 and 1984. Level 4 Refuge Water Supply is the annual amount of water needed for full development of the refuges based upon management goals developed in the 1980s. Incremental Level 4 is the difference between historic annual average water deliveries (Level 2) to refuges and the refuge water supplies required to achieve optimum wetlands and wildlife habitat management (Level 4).

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- **Title 8, Chapter 1, *Building Codes*.** The City has adopted the 2019 Edition of the California Building Code, 2019 Edition of the California Plumbing Code, and the 2019 Edition of the California Green Building Standards Code. These codes require the installation of low-flow plumbing fixtures and outdoor water conservation.
- **Title 9, Article 6, *Water Development Impact Fees*.** Section 9-2.605 establishes development impact fees for water supply and the construction of a water distribution system for undeveloped areas that are proposed for residential or commercial development.
- **Title 9, Chapter 6, *City of Los Banos Water Efficient Landscape Ordinance*.** Section 9-6.06 establishes the State MWELO requirements which increase water efficiency standards for new and retrofitted landscapes through more efficient irrigation systems, greywater usage, and on-site stormwater capture.

2020 Urban Water Management Plan

Based on the State regulations mentioned above, all water suppliers must submit an UWMP every five years to the California Department of Water Resources (DWR) in accordance with California Water Code requirements. The City of Los Banos adopted its current 2020 UWMP in June 2021. The 2020 UWMP describes water demands, available water supply sources, and supply reliability for its service area in five-year increments for normal years, single-dry years, and multiple-dry years up to year 2045. The UWMP also provides a water shortage contingency plan, demand management measures to increase water use efficiency, and current and planned water conservation efforts.

The City's 2020 UWMP includes projections of water demand and supply for its entire service area, including the area proposed for redevelopment as part of the General Plan 2042. Although the water demand projections were developed through the year 2045, the population growth estimates were less than what is envisioned for the General Plan 2042. The future water use projections were based on 165 gallons/day/person, because land use was not expected to vary in density or water use per acre.¹¹ Also, water savings resulting from compliance with the CALGreen Building Code and the MWELO for new construction were not accounted for in the future projections. The current and projected water demands from the City's 2020 UWMP are provided in Table 4.16-1, *2020 UWMP Current and Projected Water Demands for the City of Los Banos*.

¹¹ City of Los Banos, 2021. *Urban Water Management Plan 2020 Update for the City of Los Banos*. Prepared by Provost & Pritchard Consulting Group.

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TABLE 4.16-1 2020 UWMP CURRENT AND PROJECTED WATER DEMANDS FOR THE CITY OF LOS BANOS (AFY)

Use Type	2020	2025	2030	2035	2040	2045
Single Family	4,797	4,816	5,188	5,589	6,021	6,486
Multi-Family	355	356	384	414	446	480
Commercial	1,107	1,111	1,197	1,290	1,389	1,497
Landscape	584	586	632	680	733	790
Losses	1,465	1,471	1,584	1,707	1,839	1,981
Total	8,309	8,340	8,985	9,679	10,427	11,233

Note: AFY = acre-feet/year

Source: City of Los Banos 2020 Urban Water Management Plan (UWMP), 2021.

Los Banos Water Master Plan

The latest Water Master Plan (WMP) for the City of Los Banos was prepared in 2008 but amended in March 2010 to include the changes in land use and planning boundaries that would be consistent with the City's General Plan 2030. The area evaluated in the WMP has essentially the same boundaries as the EIR Study Area for the General Plan 2042, but the General Plan 2030 and thus the WMP projected a much higher population of 90,400 people by 2030 when compared to the proposed General Plan 2042, which is 72,500 population. The WMP describes the existing water distribution system, historic water usage and future water demand projections, supply capacity and proposed improvements, and prioritization of future capital improvement projects to meet the projected increase in population demand. Some of the improvements described in the WMP have since been implemented.

Existing Conditions

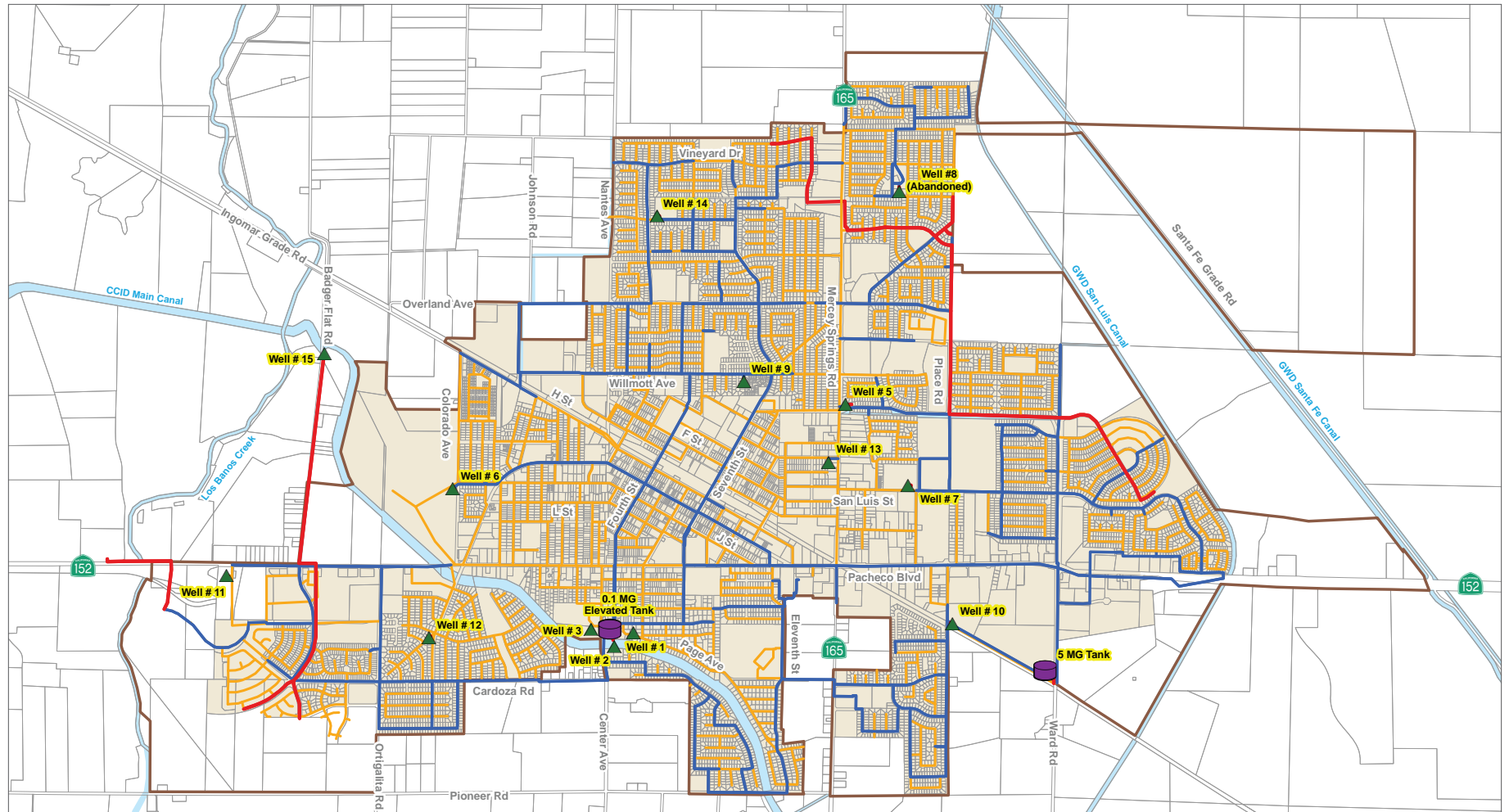
The City of Los Banos produces its water supply solely from groundwater and distributes it to its residential, commercial, institutional, and industrial customers. As of 2020, the City supplied 8,309 AF of water via 12,792 connections. Most of the water (58 percent) is supplied to single-family residences. Commercial properties account for 13 percent of the water used, landscape customers 7 percent, multi-family residences 4 percent, and water losses 18 percent.¹²

The City's water distribution system consists of 13 groundwater wells, 142 miles of water pipelines – ranging in size from four to 30 inches in diameter, an elevated water tank with a capacity of 100,000 gallons, and one aboveground 5-million-gallon water storage tank equipped with four booster pumps with a total pumping capacity of 10,500 gallons per minute (gpm). The City maintains thousands of water valves and hydrants throughout the city and has plans to construct additional wells in the future (2024) with increasing water demands. The City's WMP assumed a population of 90,400 people by 2030, and the plan provides needed expansions in the City's distribution system to meet this demand.¹³ The General Plan 2042 projects a much smaller population increase of 72,500 people by 2042. The water supply system is shown in Figure 4.16-1, *Water Distribution System*.

¹² Provost & Pritchard Consulting Group, 2021. *Urban Water Management Plan 2020 Update for the City of Los Banos*.

¹³ Carollo Engineers, 2010. *Master Plan for Water Distribution System*. Amended March 2010.

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Source: Master Plan for Water Distribution System, March 2010. Carollo Engineers, 2010.



Legend		Water Pipeline Diameter	Current Water Distribution Service Area
Existing Water Distribution System		8" and Smaller	Waterways/Canals
▲ Groundwater Well	10" - 14"		Parcels
● Storage Tank	16" and Larger		City Limits

Figure 4.16-1
Water Distribution System

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Water Sources

The City of Los Banos relies solely on groundwater sources and extracts its water supply from 13 active groundwater wells capable of pumping up to 14,875 gpm. The groundwater is extracted from the Delta-Mendota Subbasin, which is part of the larger San Joaquin Valley Basin. The Delta-Mendota Subbasin is in critical overdraft and management of the aquifer is addressed in the 2019 *Groundwater Sustainability Plan*.¹⁴ Additional details on the groundwater basin and sustainability goals are provided in the *Water Supply Assessment* (see Appendix I, *Water Supply Assessment*, of this Draft EIR).

Future Water Sources

The use of recycled water is technically feasible but not economical. To use recycled water for outdoor landscaping and irrigation, the City would need to add a tertiary treatment system to the wastewater treatment plant (WWTP) and construct a “purple pipe” water distribution system. However, the City currently provides WWTP effluent for irrigation of approximately 180 acres of pastureland within the city limits and 237 acres of pastureland outside of the city limits.¹⁵ According to the City’s Wastewater Master Plan, future expansion of the WWTP would expand the ability to provide effluent for irrigation to about 720 acres.

The City currently is exploring the procurement of surface water supplies. If surface water supplies are obtained, they could only be used for groundwater recharge or for non-potable uses since the City does not have a surface water treatment plant. Projects that the City tends to complete before 2025 include a new groundwater well and booster pump station, a 2.5-million-gallon storage tank, and permanent hexavalent chromium treatment facilities (if needed).

4.16.1.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in significant water supply impact if it would:

1. 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.
2. Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
3. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to water supply.

¹⁴ San Joaquin River Exchange Contractors GSA, 2019. *Groundwater Sustainability Plan for the San Joaquin River Exchange Contractors GSP Group in the Delta-Mendota Subbasin*

¹⁵ City of Los Banos, 2021. *2020 Urban Water Management Plan*.

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4.16.1.3 IMPACT DISCUSSION

UTIL-1	Implementation of 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.
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Under the proposed land use changes, water demand for the City of Los Banos will increase due to increases in population and employment. The primary source of water for the proposed project would be groundwater extracted by the City to provide service to its customers. The current and projected water demands from the City's 2020 UWMP are provided in Table 4.16-1, *2020 UWMP Current and Projected Water Demands for the City of Los Banos*, in Section 4.16.1.1, *Regulatory Framework*. However, the water demand from the City's 2020 UWMP were population-based projections which generally do not account for changes in land uses. The buildout projections in the General Plan 2042 provide new information about residential and commercial development potential over the next 20 years that was not factored into the City's 2020 UWMP. Given this new information and the projected increase in population with implementation of the General Plan 2042, the WSA for the proposed project provides new water demand projections based upon land use changes identified in the General Plan 2042 (see Appendix I, *Water Supply Assessment*, of this Draft EIR).

The buildout of the General Plan 2042 will result in new buildings and residences that fully comply with the more stringent requirements of CALGreen, California Plumbing Code, and the City's WELO. Only three percent of the current residences served by the City's water distribution system were built after 2010, when the CALGreen Building Code was first implemented and the installation of water conserving plumbing fixtures and fittings was mandated. It is conservatively estimated that the new construction of both residences and commercial land uses will achieve a reduction in water usage rates of 20 percent through compliance with these regulations.

Water Demand Analysis

Buildout of the General Plan 2042 would include 8,900 new dwelling units. The water demand for these additional units was calculated based on the numbers provided in the 2020 UWMP for single-family dwellings. The total water usage in 2020 for single-family residences of 4,797 AFY was divided by the number of service connections (11,864) to get a water use factor of 0.404 AFY per dwelling unit. The proposed General Plan 2042 designates land for residential development at a range of densities and would require new neighborhoods to include a diversity of housing types, so some future housing would be multi-family residential. However, for this analysis, it was conservatively assumed that all future housing would be single-family residences, which results in a higher water demand than multi-family residences.

The water demand for the commercial land use category from the 2020 UWMP was used to determine the water usage associated with an increase in the number of jobs under the General Plan 2042. The volume of water used in 2020 in the commercial sector was 1,107 AF, and there were 7,000 jobs in 2020. Therefore, the water demand factor is 0.158 AFY per employee. This equates to about 141

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gallons/day/employee, which is much higher than the Merced County estimate of 40 gallons/day/employee. This is most likely due to the large food processing facilities within the city limits that use large quantities of water. Since all the new residential and commercial construction will require compliance with the CALGreen Building Code and MWELo, a 20 percent reduction in water demand as compared to existing conditions was included in the calculations. The analysis also conservatively assumes that water demand for existing uses will remain the same over time, although it is expected that existing commercial and residential water users will replace old fixtures with newer, more efficient fixtures over time.

Existing landscape accounts used a total of 584 AF in 2020, and the existing acreage of parks in the city is approximately 265 acres. Therefore, the irrigation demand is approximately 2.2 AF/acre. To meet the City's ratio of 5 acres of parkland per 1,000 residents, the General Plan 2042 would need to add 100 additional acres of parkland. At 2.2 AF/acre, this would result in an additional landscape irrigation demand of 220 AF.

Current water losses account for 18 percent of the total water demand. This is relatively high as compared to the average water loss of 10 percent for California water purveyors. Senate Bill 555, which passed in 2015, requires the SWRCB to set standards for water loss for urban water suppliers. The DWR is currently in the process of developing volumetric water loss performance standards. For this analysis, it is assumed that implementation of these regulations by 2028 (or 2031 for water suppliers serving disadvantaged communities) and the installation of new water pipelines with implementation of the General Plan 2042, would reduce the City's water losses from 18 percent to 10 percent. The calculated additional water loss at the buildout year 2042 would be 351 AFY.

The projected increase in water demand with implementation of the General Plan 2042 is provided in Table 4.16-2, *Water Demand Increase – General Plan 2042*.

TABLE 4.16-2 WATER DEMAND INCREASE - GENERAL PLAN 2042

Category	Existing Conditions ^a (AFY)	Increase with GP 2042 ^b (AFY)	Total Water Demand (AFY)
Single Family Residential	5,153	2,876	8,029
Commercial	1,107	633	1,740
Landscape	584	220	804
Water Losses	1,465	351	1,816
Total	8,309	4,080	12,389

Notes: AFY = acre feet per year

a. Numbers from 2020 UWMP.

b. Includes reduction of 20 percent for new residential and commercial construction with compliance with CALGreen and MWELo requirements

Source: City of Los Banos UWMP, 2021 and PlaceWorks, 2022.

As shown in Table 4.16-2, the incremental water demand associated with buildout of the General Plan 2042 is 4,080 AFY. It is assumed that the development rate will be constant over the 20-year buildout period. Adding the incremental water demand to the existing water demand estimate provides the total water demand for the project at buildout. The existing 2020 water demand of 8,309 AFY from the UWMP, plus an additional 4,080 AFY for buildout under the proposed project, results in a total water demand of 12,389 AFY in 2042.

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To evaluate water supply reliability, California statutes require the consideration of water supplies and demands in three types of water conditions: normal, single dry, and multiple dry water years.¹⁶ The 2020 UWMP indicates that the City can meet the water demands of its customers in normal, single dry, and multiple dry years between 2025 and 2045, as shown in Table 4.16-3, *2020 UWMP – Normal, Single Dry, and Multiple Dry Year Supply and Demand*.

TABLE 4.16-3 2020 UWMP - NORMAL, SINGLE DRY, AND MULTIPLE DRY YEAR SUPPLY AND DEMAND (AFY)

		2025	2030	2035	2040	2045
Normal Year						
Supply Totals		8,340	8,985	9,679	10,427	11,233
Demand Totals		8,340	8,985	9,679	10,427	11,233
Difference		0	0	0	0	0
Single Dry Year						
Supply Totals		8,340	8,985	9,679	10,427	11,233
Demand Totals		8,340	8,985	9,679	10,427	11,233
Difference		0	0	0	0	0
Multiple Dry Year						
First Year	Supply Totals	8,340	8,985	9,679	10,427	11,233
	Demand Totals	8,340	8,985	9,679	10,427	11,233
	Difference	0	0	0	0	0
Second Year	Supply Totals	8,340	8,985	9,679	10,427	11,233
	Demand Totals	8,340	8,985	9,679	10,427	11,233
	Difference	0	0	0	0	0
Third Year	Supply Totals	8,340	8,985	9,679	10,427	11,233
	Demand Totals	8,340	8,985	9,679	10,427	11,233
	Difference	0	0	0	0	0
Fourth Year	Supply Totals	8,340	8,985	9,679	10,427	11,233
	Demand Totals	8,340	8,985	9,679	10,427	11,233
	Difference	0	0	0	0	0
Fifth Year	Supply Totals	8,340	8,985	9,679	10,427	11,233
	Demand Totals	8,340	8,985	9,679	10,427	11,233
	Difference	0	0	0	0	0

Source: City of Los Banos 2020 UWMP, 2021.

The 2020 UWMP projected water demands are based on a population growth rate of 1.5 percent and a per capita water use of 165 gallons/day. This results in a projected population of 59,970 people in 2042. It also assumes that the water demand for the various water use sectors (i.e., single-family, commercial, landscape, and distribution system losses) would increase at the same 1.5 percent rate as the population. This would result in an estimated water demand of 10,427 AFY in 2040 and 11,233 AFY in 2045. This is interpolated to a water demand of 10,832 AFY for the buildout year of 2042.

The General Plan 2042 assumes that most of the future growth would be an increase in the number of residences. Although General Plan 2042 designates land for high-density, medium-density, and low-

¹⁶ Department of Water Resources, 2005. *California Water Plan, Bulletin 160-05, Volume III* ("Each district has different assumptions and policies that guide their planning").

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density residential development, the WSA conservatively (worst case scenario) assumed that all future residential growth would be in the single-family residential sector. Multi-family residences typically have a lower water demand. There also would be an increase in the number of jobs, which correlates with the commercial land use sector. For comparison purposes, the single-family and multi-family land use sector from the 2020 UWMP were combined. The difference between the projected water demand in the 2020 UWMP and the General Plan 2042 is shown in Table 4.16-4, *Comparison of 2020 UWMP Demand and Projected General Plan 2042 Demand at Buildout*. The UWMP projected demands for the years 2040 and 2045 were interpolated to obtain water demand for the buildout year 2042.

TABLE 4.16-4 COMPARISON OF 2020 UWMP DEMAND AND PROJECTED GENERAL PLAN 2042 DEMAND AT BUILDOUT

Category	2042 Demand Interpolated from 2020 UWMP (AFY)	Estimated Demand with GPU Buildout 2042 (AFY)	Difference (AFY)	Percent Difference
Residential	6,717	8,029	1,312	20% increase
Commercial	1,443	1,740	297	21% increase
Landscape	762	804	42	6% increase
Losses	1,910	1,816	--94	5% decrease
Total	10,832	12,389	1,557	-

Note: Units are in AFY (acre-feet per year)

Source: City of Los Banos UWMP, 2021. PlaceWorks, 2022.

As shown in Table 4.16-4, the results indicate that the General Plan 2042 water demand would exceed the demand specified in the 2020 UWMP by 1,557 AFY. Since the 2020 UWMP states that there would be exactly enough water supply to meet the demand in normal, single-dry, and multiple-dry years, the City would need to find a water supply source for the additional 1,557 AFY required with buildout of the General Plan 2042. However, it should be noted that UWMPs tend to overestimate future water demand.¹⁷ In addition, there is a long-term trend of declining per capita water demand due to the use of water-efficient devices in the residential and commercial sectors, so that the total water demand declines even as populations increase.

Groundwater Analysis

Although the City's groundwater production wells have the capability to meet the projected future demand under General Plan 2042, the Delta-Mendota Subbasin is in critical overdraft, and the SGMA states that all GSAs must meet groundwater sustainability by 2040. The SJREC GSP prepared a groundwater budget for each GSA to ensure that the groundwater sustainability goal is met. As described in the WSA, the groundwater budget for the City of Los Banos assumes that half of the amount of pumped groundwater becomes effluent and half of the water is used for outdoor irrigation. The effluent is sent to the wastewater treatment plant (WWTP) and is currently used to irrigate 350 acres of pasture. The consumptive use of the pasture is approximately 3.3 AF/acre. The remainder of the effluent becomes recharge. For outdoor water use, a 70 percent irrigation efficiency is assumed to determine the

¹⁷ Pacific Institute, 2020. *An Assessment of Urban Water Demand Forecasts in California*.

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consumptive use, and the remainder is recharge. The water budget in the SJREC GSP for the City of Los Banos was calculated for WY 2013 and is provided in Table 4.16-5, *City of Los Banos Groundwater Budget*. Using the same methodology provided in the SJREC GSP, Table 4.16-5 also includes the groundwater budget based on the 2020 UWMP groundwater pumping rate and the buildout conditions (2042) pumping rate.

TABLE 4.16-5 CITY OF LOS BANOS GROUNDWATER BUDGET (AFY)

Date	Pumping Rate	Effluent ^a			Outdoor Use			Net Consumptive Use	Net Recharge
		Effluent	Consumptive Use	Recharge	Outdoor Use	Consumptive Use	Recharge		
2013	8,500	4,300	1,155	3,145	4,300	3,010	1,290	4,165	4,435
2020	8,309	4,155	1,155	3,000	4,155	2,908	1,246	4,063	4,246
2042	12,389	6,195	1,376 ^b	4,818	6,195	4,336	1,858	5,712	6,676

Notes:

a. Effluent is wastewater produced by Los Banos users that is used by the wastewater treatment plant to irrigate pasture lands.

b. The consumptive use increases in 2042 because the effluent application to pasture is increased to 417 acres, as per the 2020 UWMP.

Source: SJREC, 2019, Groundwater Sustainability Plan; PlaceWorks, 2022

Although the net recharge exceeds the net consumptive use in all years, the 2019 GSP uses a different criterion to determine sustainability. The approximate sustainable yield for the City of Los Banos GSA is 0.40 AF/acre, according to the SJREC GSP. Since the EIR Study Area encompasses 14,500 acres, this is equivalent to 5,800 AFY. Since the net consumptive use in 2042 is less than the sustainable yield criterion, the water budget for Los Banos meets the sustainability criterion. In addition, there will be a reduction in groundwater pumping within the EIR Study Area with the conversion of land with private groundwater wells to the City's water distribution system. Current groundwater pumping rates from private wells within the EIR Study Area are approximately 4,766 AFY. The decrease in groundwater pumping from private wells would offset the increase in groundwater pumping (4,080 AFY) by the City to serve new development with buildout of the General Plan 2042, and there would be a net decrease in demand of 686 AFY.

Specific criteria on pumping restrictions have not yet been developed for Los Banos, although it is anticipated that they will be determined over the next few years. They may mandate water conservation in certain years to achieve groundwater sustainability.

Since much of the agricultural land within the EIR Study Area is irrigated with canal water from CCID, this water will be unavailable with buildout under the General Plan 2042 because CCID requires de-annexation from the irrigation district upon the annexation of land within the EIR Study Area to the city. However, CCID canal water is typically put to beneficial use elsewhere within CCID's boundaries. Therefore, replenishment of the groundwater aquifer would occur in similar amounts but at different locations within the Delta-Mendota Subbasin.

New development or redevelopment within the EIR Study Area would be required to implement the water-efficient requirements for new construction in accordance with the LBMC, the CALGreen Building Code, and the California Plumbing Code. Additionally, the City's WMP includes capital improvement projects to expand the existing water distribution system and the WMP assumed a larger future population with an increased water demand as compared to the General Plan 2042.

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In addition, the General Plan 2042 Land Use (LU) Element; Parks, Open Space, and Conservation (P) Element; Safety and Noise (S) Element; and Public Facilities and Services (PFS) Element contain goals, policies, and actions that require local planning and development decisions to consider impacts to water supply. The following General Plan goals, policies, and actions would serve to minimize potential adverse impacts to water supply:

- **Goal LU-1.** Provide for orderly, well-planned, and balanced development.
 - **Policy LU-P1.8.** Require areas annexed to the City to be served by City utilities. Prohibit new wells and septic systems to serve urban development within the city limits. Conversely, do not provide utility services, water, and sanitary sewer to new development outside of the city limits unless annexation is approved. Prior to annexation, the City must find that adequate water supply and service and wastewater treatment and disposal capacity can be provided. Existing water supplies must remain with the land and be transferred to the City upon annexation approval.
 - **Policy LU-P1.11.** Monitor growth rates to ensure they do not overburden the City's infrastructure and services or exceed the amounts analyzed in the General Plan Environmental Impact Report.
- **Goal P-6.** Protect and restore biological resources of Los Banos.
 - **Action P-A6.1.** Develop buffer zones around Los Banos Creek Corridor and Grassland wetland areas to the east to enhance groundwater recharge and minimize impacts to habitat species.
- **Goal P-9.** Protect and restore water quality in and around Los Banos.
 - **Policy P-P9.2.** Ensure groundwater quality is maintained at a satisfactory level for domestic consumption.
 - **Policy P-P9.4.** Work with the San Joaquin River Exchange Contractors (SJREC) Groundwater Sustainability Plan (GSP) group to offset increases in water demand based on projected population growth by identifying, analyzing, and implementing projects jointly with the SJREC to maximize the regional benefits. The City will develop projects to offset overdraft, including (1) stormwater capture, (2) demand reduction through reduced watering, (3) surface water transfer, (4) purchasing groundwater credits, and (5) participation in recharge projects.
 - **Action P-A9.1.** Actively monitor groundwater quality and quantity throughout the Planning Area.
 - **Action P-A9.2.** Work with Central California Irrigation District to investigate a possible water recharge program.
 - **Action P-A9.3.** Seek funding from the Department of Water Resources' Sustainable Groundwater Planning Grant Program (SGWP) to fund projects that promote the sustainable use of groundwater.
 - **Action P-A9.4.** Explore the feasibility of surface water transfers from the Central California Irrigation District and Grassland Water District to alleviate groundwater overdraft and groundwater quality issues.
- **Goal PFS-3.** Ensure a resilient supply of fresh, safe water to serve existing and future needs of the city.
 - **Policy PFS-P3.1.** Promote the conservation of water within Los Banos.

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- **Policy PFS-P3.2.** Ensure adequate groundwater reserves are maintained for present and future domestic, commercial, and industrial uses.
- **Policy PFS-P3.3.** Require new development to document that water supply capacity, quality, and infrastructure are in place prior to approval of new development.
- **Policy PFS-P3.4.** Prohibit extension of water and sewer lines beyond the Sphere of Influence, except in cases of developing regional water and sewer facilities or of existing documented health hazards and in areas where the City has agreements to provide services.
- **Policy PFS-P3.5.** Continue to pursue the identification and acquisition of surface water rights or supply agreements to meet future regional water supply needs.
- **Policy PFS-P3.6.** Attempt to retain water rights in all annexed areas so that agricultural production can continue on annexed land until the time of development. These rights will then be made available to meet urban water demands, or where feasible, be exchanged for groundwater recharge opportunities as part of a comprehensive water recharge program.
- **Policy PFS-P3.7.** Require all development projects to submit a landscaping plan.
 - Commercial, public right-of-way, and park projects will be required to submit planting plans, irrigation plans, irrigation schedules, and water use estimates for City approval prior to issuance of building permits;
 - Industrial projects will be required to submit plans for water recycling and explain how water use will meet requirements of the National Pollutant Discharge Elimination System program during the plan review process. They will also be required to submit irrigation plans for proposed landscaping.
- **Policy PFS-P3.8.** Develop water filtration facilities to ensure the quality of groundwater meets federal and state drinking water standards. The City may place a temporary cap on urban development, if necessary, to allow facilities to catch up with growth.
- **Policy PFS-P3.9.** Promote the use of evapotranspiration (ET) water systems in irrigating agriculture and large parks.
- **Policy PFS-P3.10.** Educate the general public about the importance of water conservation, water recycling, and groundwater recharge through the following means: making water production and treatment facilities available for tours by schools or organized groups; encouraging educators to include water conservation in their curriculums; and providing tips to business groups on water conservation and recycling.
- **Action PFS-A3.1.** Regularly review and update impact mitigation fees to help fund water and sewage services for new development.
- **Action PFS-A3.2.** Become a signatory to the California Urban Water Conservation Council and implement all Demand Management Measures as soon as they become feasible.
- **Action PFS-A3.3.** Implement recommendations set forth in the City's current Urban Water Management Plan, including initiatives such as: a water survey program, a water conservation program (Water Patrol), and a Residential Plumbing retrofit program.
- **Action PFS-A3.4.** Engage the business community in protecting the City's water supply.

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- **Goal PFS-5.** Ensure that adequate, safe wastewater treatment capacity is available to serve existing and future needs of the city.
- **Policy PFS-P5.3.** Encourage the use of reclaimed water for irrigation and landscaping purposes.
- **Action PFS-A5.3.** Evaluate the potential for the use of reclaimed water (purple pipe) throughout the city.

The proposed goals, policies, and actions enacted under the General Plan 2042 include working with the SJREC on projects and management actions to offset groundwater withdrawals that exceed the sustainable yield and exploring the potential for surface water transfers from CCID to alleviate groundwater overdraft and groundwater quality issues. The SJREC is working to implement projects that would increase groundwater recharge by 50,000 AF, including the Los Banos Creek Diversion Facility, Los Banos Creek Recharge and Recovery Program, and the Los Banos Creek Storage Project. Also, buffer zones will be established around Los Banos Creek Corridor and the Grassland wetland areas to the east to enhance groundwater recharge and minimize impacts to wetlands and habitat species. The proposed project also includes the proposed Annexation Ordinance that, as described in detail in Chapter 3, *Project Description*, of this Draft EIR, states the application eligibility criteria and the findings necessary for approval. The proposed Annexation Ordinance requires that existing water supplies must remain with the land and be transferred to the City upon annexation, and no new wells or septic systems shall be allowed. New development must fully fund construction of all improvements needed both on- and off-site to mitigate its impacts on utility infrastructure, and all specific plans must include the location and specifications for water facilities needed to serve new development consistent with City infrastructure master plans.

Because the potential future development would result in an increase in demand for potable water, the City has made plans for infrastructure expansion and improvement. The City's WMP includes expansion of the water distribution system that would extend throughout the EIR Study Area and is sized for build-out conditions. Also, as described in Section 4.16.1.1, *Regulatory Setting*, the City imposes water development impact fees to fund the construction of the water distribution system in undeveloped areas that are proposed for residential or commercial development. There are plans to construct a new groundwater well in 2024 and a new 2.5-million-gallon water tank in the near future.¹⁸ Water users also pay connection fees and monthly water usage charges so that the City can maintain and expand its water distribution system. Therefore, impacts related to infrastructure expansion and improvement with implementation of the General Plan 2042 would be *less than significant* and no mitigation measures are required.

In summary, there are sufficient groundwater supplies available to the City, and expansion of the water distribution system would not cause significant environmental effects. In addition, compliance with the LBMC requirements for new construction and water-efficient landscaping and the General Plan policies listed here would result in *less-than-significant* impacts with respect to water supply and water infrastructure.

Significance without Mitigation: Less than significant.

¹⁸ Provost & Pritchard Consulting Group, 2016. *City of Los Banos Urban Water Management Plan, 2015 Update*.

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UTIL-2	Implementation of 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.
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As discussed under Impact UTIL-1 and provided in Table 4.16-4, the General Plan 2042 water demand would exceed the demand specified in the 2020 UWMP by 1,557 AFY. Since the 2020 UWMP states that there would be exactly enough water supply to meet the demand in normal, single-dry, and multiple-dry years (Table 4.16-3), the City would need to find a water supply source for the additional 1,557 AFY required with buildout of the General Plan 2042.

However, with buildout under General Plan 2042, land would be annexed into the City and converted from agricultural use to urban use. If the land on which private wells are located are converted to non-agricultural use and become connected to the City's water distribution system, this would result in a reduction in groundwater pumping within the EIR Study Area by 686 AFY. This net decrease in groundwater pumping from private wells of 4,766 AFY would offset the increase in groundwater pumping by the City of 4,080 AFY to serve new development with buildout of the General Plan 2042. Therefore, the City should have sufficient water supplies to meet the demand under normal, single-dry, and multiple-dry years.

Implementation of the General Plan Policies listed in UTIL-1 and the elimination of groundwater pumping from private wells within the EIR Study Area would ensure that the City meets its sustainability goals with respect to overdraft of the Delta-Mendota Subbasin. In addition, there is a long-term trend of declining per capita water demand due to the use of water-efficient devices in the residential and commercial sectors, so that the total water demand declines even as populations increase.

Additionally, projects pursuant to the General Plan 2042 would be required to implement the water-efficient requirements specified in the LBMC requirements for new construction and water efficient landscaping.

In summary, there would be sufficient water supplies for buildout associated with the General Plan 2042 and impacts associated with water supply would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

UTIL-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 water supply.
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This section analyzes potential impacts to water supply that could occur from the proposed project in combination with other reasonably foreseeable projects in the surrounding area. The geographic scope of this cumulative analysis is the EIR Study Area, and the analysis is based on the WSA and 2020 UWMP. While the proposed project would contribute to an increased demand for water supply, the increase in water demand of 1,137 AFY would be offset by the reduction in groundwater pumping from private wells

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within the EIR Study area that averages 4,766 AFY. With implementation of SB X7-7 and State, regional, and local water conservation ordinances, all new development would be required to conserve water use and implement water efficiency measures. In addition, pursuant to SB 610 and SB 221, WSAs would be prepared for large development projects prior to approval of each project to ensure adequate water supply for new development.

Overall, cumulative water demands would neither exceed planned levels of supply nor require an expansion of the water distribution system beyond what is currently planned in the City's WMP and 2020 UWMP. Together, existing regulations, proposed policies, and other considerations would ensure that cumulative impacts with respect to water supply under the proposed project would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

4.16.2 WASTEWATER

4.16.2.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

Clean Water Act

The Clean Water Act (CWA) of 1972 regulates the discharge of pollutants into watersheds throughout the nation and is implemented by the United States Environmental Protection Agency (USEPA). Under the CWA, the USEPA sets wastewater standards and made it unlawful to discharge pollutants from a point source to 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 as part of 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 connections and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions 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.

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State Regulations

State Water Resources Control Board

In California, the SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the federal government under the CWA. On May 2, 2006, the SWRCB adopted Statewide General Waste Discharge Requirements (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than one mile of sewer pipes. The order provides a consistent statewide approach to reducing sanitary sewer overflows (SSOs) by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system and to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sanitary Sewer Master Plan. The Waste Discharge Requirements require public agencies that own or operate sanitary sewer systems to develop and implement Sewer System Management Plans (SSMPs) and report all SSOs to the SWRCB's online reporting system. The SWRCB has delegated authority to nine RWQCBs to enforce these requirements within their regions.

The Central Valley RWQCB (Region 5) issues and enforces NPDES permits in the study area. 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 RWQCB is also charged with conducting inspections of permitted discharges and monitoring permit compliance.

Sanitary District Act of 1923

The Sanitary District Act of 1923 (Health and Safety Code Section 6400 *et seq.*) authorizes the formation of sanitation districts and enables the sanitation districts to construct, operate, and maintain facilities for the collection, treatment, and disposal of wastewater.

Local Regulations

Los Banos Wastewater Treatment Plant NPDES Permit

The City of Los Banos conveys wastewater from within the city via sanitary sewer lines to its own wastewater treatment plant (WWTP) located just northeast of the city. The WWTP is located at 17963 W. Henry Miller Avenue. The City operates under a NPDES permit issued by the Central Valley RWQCB (Order No. R5-2021-0026). The permit sets forth discharge prohibitions and effluent limitations as well as monitoring and reporting requirements. The new permit took effect in April 2021 and increased the wastewater flow rates to 4.9 million gallons per day (mgd) with completion of the WWTP expansion project.¹⁹

Los Banos Sewer System Management Plan

The City's most recent Sewer System Management Plan (SSMP) is dated September 2019 and was prepared in accordance with State regulations to manage, operate, and maintain all parts of the City's

¹⁹ Central Water RWQCB, 2021. *Waste Discharge Requirements Order R5-2021-0026*.

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sanitary sewer collection system. The SSMP was prepared pursuant to the requirements of SWRCB Order No. 2006-003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems and the Monitoring and Reporting Program* associated with the statewide order that was amended in July 2013 (SWRCB Order WQ-2013-0058-EXEC). The SSMP describes the City's operations and maintenance program, design and performance standards, emergency response plan, SSO notification, reporting and record keeping, and monitoring program.

Los Banos Wastewater Master Plan

Carollo Engineers prepared a Wastewater Collection System Master Plan for the City of Los Banos in September 2008, which was later amended in March 2010 to reflect the buildout conditions of the City's 2030 General Plan Update. The sphere of influence boundaries for this plan are the same as those proposed in the General Plan 2042 and the report assumed a population buildout of 90,400 people by 2030, which is much greater than that proposed in the General Plan 2042.²⁰ The Master Plan analyzes the age and status of the existing sewer infrastructure and the capacity of the sewer collection system for existing and future peak flows under both dry and wet weather conditions and maximum industrial discharge.

Existing flows were modeled based on flow monitoring data and influent flows to the WWTP. Proposed flows were modeled based on a combination of land use information and the City's proposed buildout for 2030. The average day flow in 2006 was 3.55 mgd, or about 50 percent of the City's total water use. The projected wastewater flow in 2030 ranged between 9.4 to 11.0 mgd, assuming 100 percent buildout of the sphere of influence. This projection overestimates the future wastewater flow rates, because it assumes a larger population than the General Plan 2042 and does not account for the reduction in water use and thus wastewater generation with low flow plumbing fixtures and water conservation measures.

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives that pertain to wastewater in Los Banos. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions are found in Title 6, *Sanitation and Health*, and Title 9, *Planning and Zoning*:

- **Title 6, Chapter 5, *Sewer System*.** This chapter describes the City's rules, rates, and requirements to connect to the City's sewer system, calculations of sewer disposal charges, wastewater discharge permits, and wastewater collection and treatment fees.
- **Title 9, *Planning and Zoning, Sewer Impact Development Fees*.** Article 6, Section 9-2.606 establishes development impact fees for a sewer collection system for undeveloped areas that are proposed for new residential or commercial development.

²⁰ Carollo Engineers, 2010. *Master Plan for Wastewater Collection System, City of Los Banos*.

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Existing Conditions

Sewer Collection System

The City operates and maintains the sewer collection system. The sewer collection system consists of approximately 131 miles of sewer mains and operates largely by gravity. The system also includes 13 lift stations, 1,273 sewer manholes, and 245 sewer cleanouts.²¹

The average wastewater flow rate was 2.75 mgd in 2019, with a maximum flow rate of 2.9 mgd.²² Over the last ten years, flow rates have decreased slightly and have remained relatively stable for the last several years.

Residential customers make up over 55 percent of the current flow but there are several large food processing plants within the city that average about 880,000 gpd of industrial wastewater, or about 30 percent of the total discharge. The sewer lines range in size from 4 inches up to 30 inches in diameter. See Figure 4.16-2, *Wastewater Collection System*.

Wastewater Treatment Plant

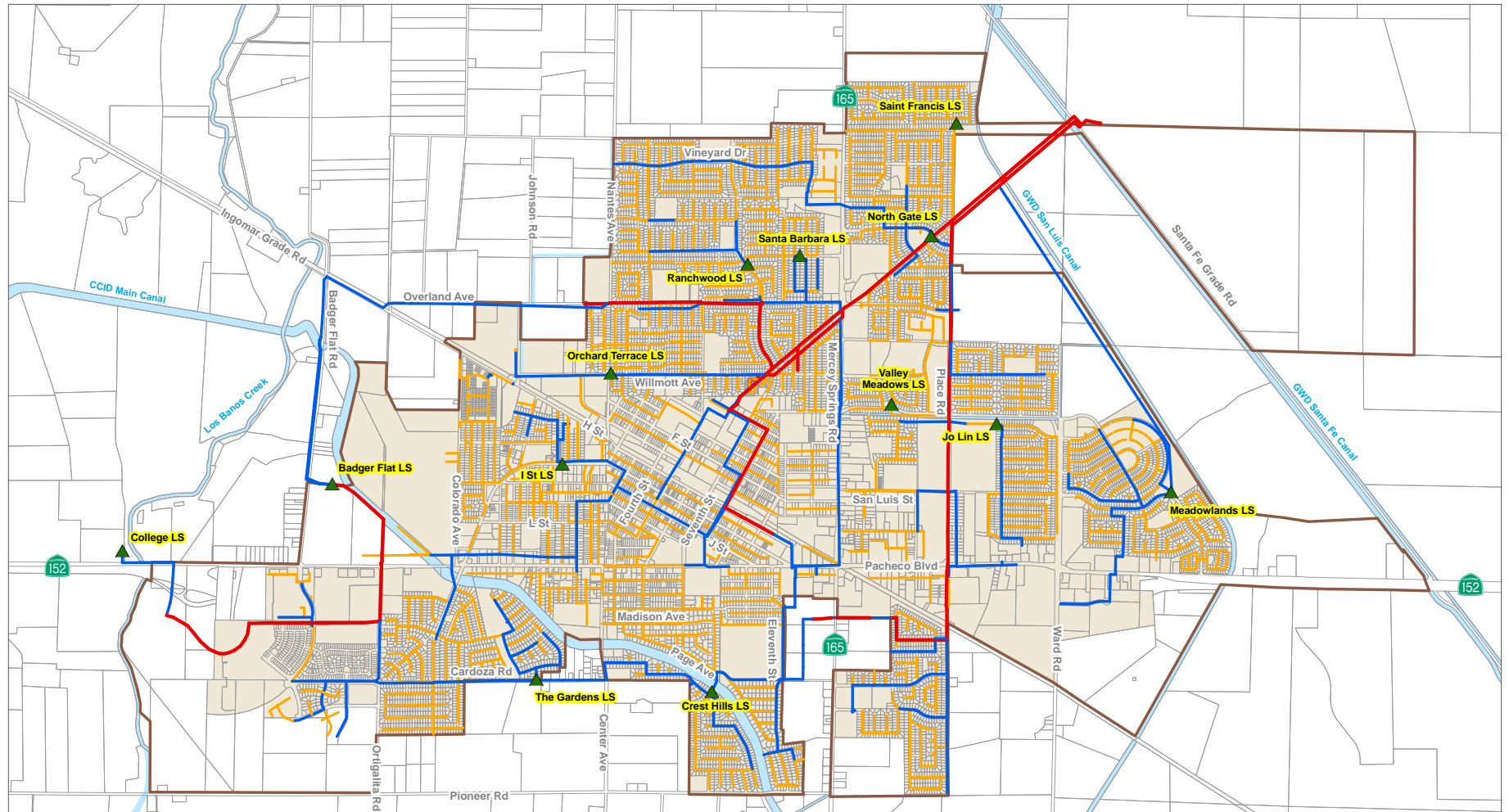
The City owns and operates its own wastewater treatment plant located at 17963 W. Henry Miller Avenue, just northeast of the city. Wastewater collected within the city is discharged to a series of unlined treatment and disposal ponds with reuse for irrigation on approximately 397 acres of pasture on land owned by the city. An expansion project was recently completed, which has increased the permit influent rate from 2.5 to 4.9 mgd.

As part of the treatment process, effluent is recirculated between the treatment and storage/disposal ponds. Screened influent entering the system flows to the recirculating pump station, where it is mixed with treated effluent and sent to the treatment ponds. Treated effluent is applied as irrigation water on land adjacent to the WWTP; these pasture areas are used for livestock grazing of non-milking animals. The pasture areas are surrounded by a 12-inch berm and equipped with a tailwater return system, which collects excess runoff and returns it to the WWTP at the recirculating station for the ponds. The WWTP relies on evapotranspiration, evaporation, and percolation for effluent disposal. At current flow rates, there is sufficient storage within the pond system to store all effluent during the wet season for a normal year and a 100-year wet year.

²¹ City of Los Banos, 2019. *Sewer System Management Plan*.

²² Central Valley RWQCB, 2021. *Waste Discharge Requirements Order R5-2021-0026*.

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Source: Master Plan for Wastewater Collection System, March 2010. Carollo Engineers, 2010.



Legend		Sewer Pipeline Diameter	Current Wastewater Collection Service Area
Existing Wastewater Collection System	▲ Lift Station	8" and Smaller	Parcels
		10 - 18"	Waterways/Canals
		21" and Larger	City Limits

Figure 4.16-2
Wastewater Collection System

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4.16.2.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in significant wastewater related impact if it would:

1. Require or result in the relocation or construction of new or expanded wastewater treatment or facilities, the construction or relocation of which could cause significant environmental effects.
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.
3. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to wastewater facilities.

4.16.2.3 IMPACT DISCUSSION

UTIL-4 Implementation of the proposed project would not require or result in the relocation or construction of new or expanded wastewater treatment or facilities, the construction or relocation of which could cause significant environmental effects.

Implementation of the proposed project would have a significant impact if it would result in the construction of new wastewater treatment facilities or the expansion of existing facilities, the construction of which would have a significant effect on the environment. As discussed below, future demands from the increased population and land use changes would not exceed the design or permitted capacity of the WWTP that serves the EIR Study Area.

Under the proposed land use changes, wastewater discharge would increase throughout the EIR Study Area. The wastewater demand increase is calculated based on an additional 8,900 dwelling units and 5,000 additional employees. For this analysis, it was assumed that 50 percent of the total water demand per dwelling unit is associated with indoor water use and that the generated wastewater would be 100 percent of the indoor water demand. For the increase in employees, it was assumed that each employee would generate an average of 25 gallons/day of wastewater. Table 4.16-6, *Wastewater Demand Rates*, shows the total wastewater discharge with proposed project buildout.

TABLE 4.16-6 WASTEWATER DEMAND RATES

Area	Existing Wastewater Demand (mgd) ^a	Increase in Wastewater Demand (mgd) ^b	Total Wastewater Discharge at Buildout (mgd)
EIR Study Area	3.16	1.41	4.57

Notes: Million gallons per day = mgd; gallons per day = gpd

a. City of Los Banos Urban Water Master Plan (UWMP), 2021.

b. Based on increase of 8,900 dwelling units, indoor water demand is estimated at 50 percent of water demand from 2020 UWMP and wastewater discharge is estimated at 100 percent of indoor water demand (1,283,977 gpd). The demand also includes a wastewater generation rate of 25 gallons per employee per day for 5,000 new employees (125,000 gpd).

Source: City of Los Banos Urban Water Master Plan (UWMP), 2021; PlaceWorks, 2022.

Buildout of the proposed project would generate an additional 1.41 mgd within the EIR Study Area for a total of 4.57 mgd by 2042. With the recent expansion of the City's WWTP, the NPDES permitted influent

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flow rate has increased to 4.9 mgd and the WWTP is designed for a peak hourly wet flow rate of 12 mgd. Therefore, the WWTP has a surplus capacity of 0.33 mgd with complete buildout of the General Plan 2042. It should also be noted that the per capita wastewater generation rates in the City of Los Banos have declined over time, with a 20 percent reduction between 2000 and 2007.²³ With the implementation of low-flow plumbing fixtures and water conservation measures that are mandated with new construction and development, the wastewater discharge rates at buildout will most likely be much less than those presented in Table 4.16-7.

The City's Wastewater Master Plan included the entire EIR Study Area in the evaluation of the sewer collection system and infrastructure. The plan also assumed a greater increase in population than is proposed for the General Plan 2042 and pipe diameters were sized for buildout conditions. In addition, the City has implemented storm drain improvements to eliminate stormwater inflow into the wastewater collection system in the downtown area, which will greatly reduce flow rates to the WWTP. The City also imposes sewer development impact fees to help fund and expand the sewer collection system in undeveloped areas that are proposed for new residential and commercial development.

All new development will be required to pay a sewer connection fee prior to the issuance of building permits and would also pay monthly wastewater collection charges. Any sewer utility infrastructure improvements shall be designed, constructed, and operated in accordance with the LBMC. The sewer connection fees and wastewater collection fees are used by the City to continually upgrade components of the wastewater collection and transmission systems through their capital improvement programs.

In addition, the proposed Public Facilities and Services (PFS) Element contains goals, policies, and actions that require local planning and development decisions to consider impacts to wastewater facilities. The following General Plan goals, policies, and actions would serve to minimize potential adverse impacts to these facilities:

Development pursuant to the General Plan Update would also comply with the following General Plan Policies and Actions:

- **Goal PFS-3.** Ensure a resilient supply of fresh, safe water to serve existing and future needs of the city.
 - **Policy PFS-P3.4.** Prohibit extension of water and sewer lines beyond the Sphere of Influence, except in cases of developing regional water and sewer facilities or of existing documented health hazards and in areas where the City has agreements to provide services.
 - **Action PFS-A3.1.** Regularly review and update impact mitigation fees to help fund water and sewage services for new development.
- **Goal PFS-5.** Ensure that adequate, safe wastewater treatment capacity is available to serve existing and future needs of the city.
 - **Policy PFS-P5.1.** Design stormwater and wastewater collection and treatment facilities to serve expected buildout of the areas served by these facilities.

²³ Carollo Engineers, 2010. *City of Los Banos Master Plan for Wastewater Collection System*.

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- **Policy PFS-P5.2.** In partnership with County, State, and federal agencies, work to prevent illegal wastewater disposal or chemical disposal practices.
- **Policy PFS-P5.3.** Encourage the use of reclaimed water for irrigation and landscaping purposes.
- **Action PFS-A5.1.** Implement recommendations put forth by the City's current Wastewater Management Plan with regards to:
 - The future expansion of existing treatment facilities beyond 4.9 mgd, and/or the construction of a new membrane bi-reactor (MBR) facility to meet projected population growth; and
 - The acquisition of land for treatment purposes.
- **Action PFS-A5.2.** Study the feasibility of expanding the use of wastewater effluent for irrigation of pasturelands.

The proposed project also includes the proposed Annexation Ordinance that, as described in detail in Chapter 3, *Project Description*, of this Draft EIR, states the application eligibility criteria and the findings necessary for approval. The City must find that new development will fully fund construction of all improvements needed both on- and off-site to mitigate its impacts on utility infrastructure. The proposed Annexation Ordinance also describes the required content of Specific Plans in order for those areas to be annexed into the city limit. All specific plans must include the location and specifications for sewer facilities needed to serve new development consistent with City infrastructure master plans.

In summary, the City's WWTP is adequate to convey the additional 1.41 mgd that would occur with buildout of the General Plan 2042. Therefore, new projects and redevelopment projects within the EIR Study Area would not require the construction or expansion of wastewater treatment facilities. With funding from sewer development impact fees and connection/usage fees, the City would continue to expand and improve the sewer infrastructure to accommodate new development and future growth. Therefore, impacts associated with wastewater treatment and sewer collection systems would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

UTIL-5	Implementation of the proposed project would not 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.
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As described in impact discussion UTIL-4, the City's WWTP is permitted by the RWQCB to treat 4.9 mpd and in 2020 treated 3.16 mgd. Buildout of the proposed General Plan 2042 would generate an additional 1.41 mgd, which would increase the City's wastewater flows to 4.57 mgd by 2042. Therefore, the WWTP would still have a surplus capacity of 0.33 mgd. In addition, the long-term trend of reductions in wastewater flows to the WWTP due to the installation of low-flow plumbing fixtures and water conservation measures with new construction and improvements in the storm drain system to eliminate flows to the sewer collection system would reduce wastewater discharge levels below that which was

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calculated in Table 4.16-7. Also, development pursuant to the General Plan 2042 would comply with the General Plan goals, policies, and actions listed in impact discussion UTIL-4.

With continued compliance with applicable regulations, wastewater generated by the proposed project would not exceed the capacity of the City's WWTP or the permitted capacity specified in the RWQCB's NPDES permit. Also, the General Plan 2042 goals, policies, and actions listed in impact discussion UTIL-4 would ensure that new development would minimize impacts to wastewater collection and treatment capacity. Therefore, the WWTP would have adequate capacity to serve the EIR Study Area's projected future demand and impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

UTIL-6	Implementation of the proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in a cumulative impact to wastewater facilities.
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This section analyzes potential impacts related to wastewater treatment that could occur from the proposed project in combination with reasonably foreseeable growth within the EIR Study Area.

Buildout of the General Plan 2042 would generate an increase in the volume of wastewater that requires treatment at the City's WWTP. However, the WWTP only receives and treats wastewater that originates within the city limits or in the future within the EIR Study Area. The WWTP has the capability to treat the 1.41 mgd of additional wastewater with buildout of the General Plan 2042 and would still have a residual capacity of 0.33 mgd. Based on the current excess wastewater treatment capacity of the WWTP and the projected future wastewater demand within the EIR Study Area, cumulative wastewater treatment demand is less than the capacity of the WWTP. Because the cumulative demand would not substantially impact the existing or planned capacity of the wastewater treatment system, the construction of new wastewater treatment facilities would not be necessary.

Also, future development within the service area would be required to comply with all applicable regulations and ordinances issued by the City. Additionally, the City's SSMP and Wastewater Master Plan account for increased demand with future development. Therefore, with continued compliance with applicable regulations, cumulative development combined with the proposed project would not exceed wastewater collection or treatment capacities. Accordingly, the proposed project would not result in a cumulatively considerable impact related to wastewater and cumulative impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

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4.16.3 STORMWATER

4.16.3.1 ENVIRONMENTAL SETTING

Regulatory Framework

The regulatory framework for stormwater is described in detail in Chapter 4.10, *Hydrology and Water Quality*, of this Draft EIR. The regulatory requirements that pertain solely to storm drain systems are repeated below.

Federal Regulations

National Pollutant Discharge Elimination System

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. As previously described, the study area lies within the jurisdiction of the Central Valley RWQCB (Region 5). The City is subject to the requirements of the General Permit for Storm Water Discharges for Phase II Small Municipal Separate Storm Sewer Systems (MS4s) Order No. 2013-0001-DWQ (as amended by Order No. WQ 2015-0133-EXEC, Order No. WQ 2016-0069-EXEC, Order No. WQ 2017-XXXX-DWQ, Order No. WQ 2018-0001-EXEC, and Order No. WQ 2018-0007-EXEC). The City of Los Banos is a traditional small MS4, as well as many other cities and towns within Merced County.

State Regulations

State Water Quality Control Board's Trash Amendment

On April 7, 2015, the SWQCB 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.²⁴

The Trash Amendments apply to all Phase I and II permittees under the NPDES municipal separate storm sewer systems (MS4) permits. Compliance with the Trash Amendment requires municipalities to install certified trash treatment control systems on all catch basins no later than December 2, 2030.²⁵

²⁴ State Water Resources Control Board, April 7, 2015, *Amendment to the Water Quality Control Plan for the Ocean Waters of California to Control Trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, https://www.waterboards.ca.gov/water_issues/programs/trash_control/docs/01_final_sed.pdf.

²⁵ State Water Resources Control Board, January 7, 2019, *Storm Water Program - Trash Implementation Program*, https://www.waterboards.ca.gov/water_issues/programs/stormwater/trash_implementation.html.

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State Water Resources Control Board 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 2009-0009-DWQ), as amended by Order 2010-0014-DWQ and Order 2012-006-DWQ. Under the terms of the permit, applicants must file Permit Registration Documents (PRDs) with the SWRCB prior to the start of construction. The PRDs include a notice of intent, risk assessment, site map, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and a signed certification statement.

Applicants must also demonstrate conformance with applicable best management practices (BMPs) 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 visual monitoring program, a chemical monitoring program for nonvisible pollutants if there is a failure of the BMPs, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Some sites also currently require implementation of a *Rain Event Action Plan*. A new Construction General Permit is expected to be issued by the SWRCB in July 2022.²⁶

Regional Regulations

Westside-San Joaquin Integrated Regional Water Management Plan

The Westside-San Joaquin Integrated Regional Water Management Plan (IRWMP) was prepared by the San Luis & Delta-Mendota Water Authority. The region it covers encompasses approximately 2,000 square miles of land on the western side of the San Joaquin Valley, including the City of Los Banos.²⁷ The IRWMP provides a blueprint to guide regional water resource management and addresses issues such as water supply reliability, surface and groundwater quality protection, protection of aquatic, riparian, and watershed resources, flood protection, and drainage. Projects implemented through the IRWMP include water supply and reliability, habitat protection and improvement, water quality, agricultural water management, urban water management, flood management, and public education and outreach programs.

Westside-San Joaquin Stormwater Resource Plan

The Westside-San Joaquin (WSJ) Regional Stormwater Resource Plan (SWRP) identifies and prioritizes multiple-benefit stormwater projects that can best address the regional stormwater management goals in the SWRP planning area.²⁸ The WSJ Region encompasses 2,000 square miles of land on the western side

²⁶ State Water Resources Control Board, 2022, *Proposed Statewide Construction Stormwater General Permit Reissuance*, https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/docs/proposed/notice_cgp_033022.pdf

²⁷ San Luis & Delta-Mendota Water Authority, 2019. *Westside-San Joaquin Integrated Regional Water Management Plan*. Prepared by Woodard and Curran. Dated January 2019.

²⁸ San Luis & Delta-Mendota Water Authority, 2020. *Westside-San Joaquin Stormwater Resource Plan*. Dated May 2020.

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of the San Joaquin Valley and includes the City of Los Banos. The San Luis and Delta-Mendota Water Authority (SLDMWA) is the Regional Water Management Group for the SWRP and CCID and GWD are member agencies.

The SWRP is intended to be a living document where projects will be updated and added beyond the initial SWRP development timeframe. Stormwater capture for groundwater basin recharge was identified as a regional watershed priority to increase water supply. A list of 26 eligible projects is provided in the SWRP, including the Santa Fe Canal Water Storage and Groundwater Recharge B Project which would convert existing agricultural land to water storage and recharge basins. The 400-acre site is located one mile north of the City of Los Banos adjacent to and on the north side of the Santa Fe Canal and adjacent to and on the west side of SR-165 (Merced Springs Road).

Central Valley RWQCB Waste Discharge Requirements (WDRs) for Irrigated Lands

In 2014, the Central Valley RWQCB issued Waste Discharge Requirements (WDRs) for irrigated lands to growers within the Western San Joaquin River Watershed. The WDRs were last revised in October 2021. These WDRs (Order No. R5-2014.002-11) supersede the previous Conditional Waivers (Order Nos. R5-2006-0053 and R5-2003-0105). The applicability of these WDRs for the City of Los Banos is that the agreements between the City and CCID and GWD to discharge stormwater into their canals required compliance with the former Conditional Waivers, which required water quality monitoring, data collection, and reporting. The new WDRs may require additional water quality monitoring and reporting by the City.

The San Joaquin Valley Drainage Authority, also known as the Western San Joaquin River Watershed Coalition, is acting as the third party to represent growers in the Western San Joaquin River Watershed and develop the required programs.

Local Regulations

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives that pertain to stormwater in Los Banos. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions are found in Title 6, *Sanitation and Health*, and Title 9, *Planning and Zoning*:

- **Title 6, Chapter 13, *Los Banos Urban Storm Water Management and Discharge Control*.** This chapter describes the City's rules and requirements to reduce the risk of non-storm water discharge and/or pollutant discharge to the City's storm water system, as well as SWPPP and BMP compliance.
- **Title 9, Chapter 2, Article 13, *Storm Drainage Development Impact Fees*.** This chapter establishes development fees for storm drain system for undeveloped areas that are proposed for new development.
- **Title 9, Chapter 6, *City of Los Banos Water Efficient Landscape Ordinance*.** Section 9-6.06, *Landscape Design Plan*, establishes the State MWELO requirements which increase water efficiency standards for new and retrofitted landscapes through more efficient irrigation systems, greywater usage, and on-site stormwater capture.

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Los Banos Storm Drainage System Master Plan

The latest Storm Drainage System Master Plan (SDSMP) for the City of Los Banos was prepared in 2008 but amended in March 2010 to include the changes in land use and planning boundaries that would be consistent with the City's 2030 General Plan Update. The area evaluated in the SDSMP has essentially the same boundaries as the EIR Study Area for the General Plan 2042 but the plan projected a much higher population of 90,400 people by 2030. The SDSMP describes the existing storm drain system, capacity evaluation and proposed improvements, and prioritization of future capital improvement projects to meet the projected increase in population demand. The future system improvements include the installation of numerous storm detention basins located in the upper watershed of subbasins, which attenuate peak flows. Some of the improvements described in the SDSMP has since been implemented, including improvements to the storm drains in the downtown area so that stormwater runoff no longer drains to the City's wastewater collection system. This also reduced the potential for flooding in the downtown area.

Los Banos Low Impact Development (LID) Manual

The City is in the process of drafting a Low Impact Development (LID) Manual, which will guide new development and redevelopment projects in implementing Provision E.12 of the Phase II Small MS4 permit, which requires post-construction stormwater best management practices (BMPs). Provision E.12 requires single-family homes that create and/or replace 2,500 square feet of impervious surface or small projects that create and/or replace between 2,500 and 5,000 square feet of impervious surface to implement site design measures to reduce runoff. Projects that create and/or replace 5,000 square feet or more of impervious surface must implement site design, source control, runoff reduction, and stormwater treatment measures. Projects that create and/or replace one acre or more of impervious surfaces must implement hydromodification management, which requires that post-project runoff does not exceed the pre-project flow rate for the 2-year, 24-hour storm event. Prior to the issuance of grading permits, the Public Works Department will require completion and submittal of a Stormwater Management Checklist for review and approval to ensure that these requirements are met. Implementation of these stormwater measures will reduce the amount of stormwater runoff that is ultimately discharged to the CCID and GWD canals.

Existing Conditions

The City of Los Banos owns and maintains the storm drain system that is located throughout the city. The storm drain system consists of over 79 miles of storm drains ranging in size from six to 66 inches in diameter. It also operates 12 stormwater pump stations throughout the City.²⁹ The City streets serve as collectors for most of the stormwater, and a network of drainage ditches and storm drains convey the runoff to detention basins. The runoff from the detention basins is then conveyed via gravity or pump stations to the CCID and GWD canals, although a few neighborhoods have direct discharge to the canals.

²⁹ Carollo Engineers, 2010. *City of Los Banos Master Plan for Storm Drainage System*,

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The original agreements between CCID and GWD regarding stormwater discharge from the City into their canals were renegotiated in 2005 and 2007 to provide sufficient capacity for stormwater runoff as development within the city increased. Currently, the City discharges to CCID's Main Canal and GWD's San Luis Canal and Santa Fe Canal. The stormwater system, detention basins, and pump station locations are shown in Figure 4.16-3, *Stormwater System*.

In general, the existing storm drain system has sufficient capacity to convey runoff generated during design storms. However, the 2010 Stormwater Master Plan stated that in some locations, such as the downtown area, storm drains either do not have adequate capacity and can contribute to flooding or they are connected to the wastewater collection system. Improvements to the storm drain system in this area have since been implemented so that the stormwater runoff no longer flows into the wastewater collection system. These storm drain improvements achieved multiple benefits, including reducing wastewater flow to the WWTP, relieving flooding in the downtown area, and eliminating the need for future wastewater capital projects.

4.16.3.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in a significant stormwater impact if it would:

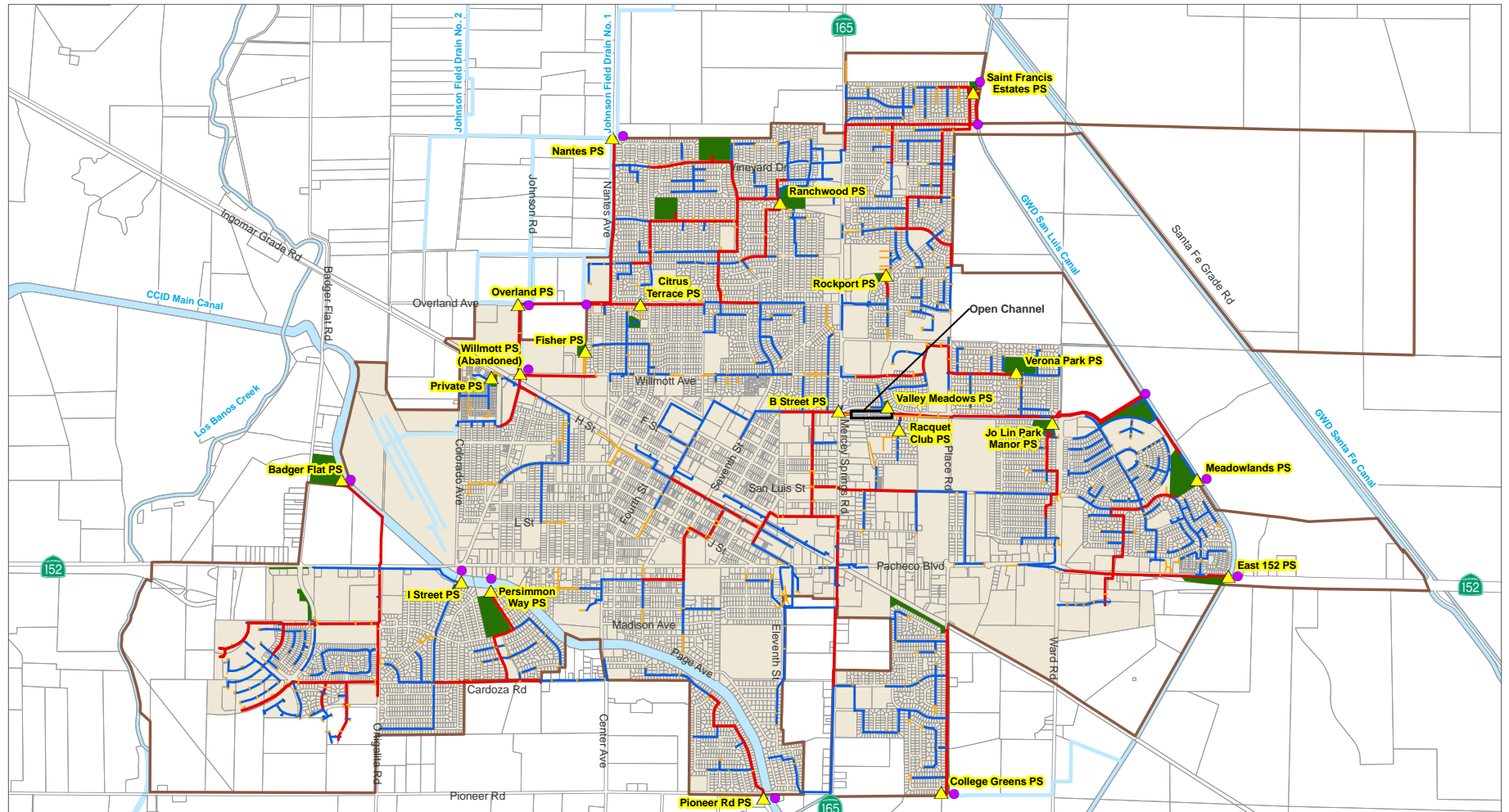
1. Require or result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects.
2. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to stormwater facilities.

4.16.3.3 IMPACT DISCUSSION

UTIL-7	Implementation of 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.
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New development and/or redevelopment as part of the General Plan 2042 and the change in land uses could 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 proposed land use changes in the General Plan 2042 would primarily involve the conversion of agricultural land and open space which would increase the amount of impervious surfaces. However, the City's Storm Drainage Master Plan describes the improvements that are planned to accommodate future growth within the EIR Study Area and the plan accounted for a larger population increase that is currently proposed for the General Plan 2042. Existing storm drains will need to be upgraded and new detention basins will need to be built with future development.

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Source: Master Plan for Storm Drainage System, March 2010. Carollo Engineers, 2010.



Legend		Storm Drain Diameter	Waterways/Canals	Current Storm Drainage Service Area
Existing Storm Drainage System		12" and Smaller		
●	Outfall	14" - 24"		
▲	Pump Station	27" and Larger		
			Storm Basins	Parcels
				City Limits

Figure 4.16-3
Stormwater System

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Projects that involve the disturbance of one acre or more of land would be subject to NPDES construction permit requirements, including preparation of a SWPPP, which includes BMPs to limit the discharge of sediment and non-stormwater discharges from the site. In order to obtain a building permit, the project applicant must provide a copy of the project's Notice of Intent (NOI) and to the City's Public Works Department for review and approval.

Projects that involve the creation and/or replacement of 2,500 square feet or more of impervious surfaces would trigger the implementation of site design measures to reduce stormwater runoff, as per the City's LID Manual, which is currently being developed, and the Phase II Small MS4 Permit requirements. In addition, stormwater treatment measures are required to temporarily detain site runoff for regulated projects that create or replace 5,000 square feet or more of impervious surface, using specific numeric sizing criteria based on volume and flow rate. Bioretention BMPs also provide water quality benefits by removing pollutants from stormwater runoff prior to discharge to the storm drain system. Regulated projects would be required to demonstrate that the regulatory requirements for temporary on-site stormwater runoff retention have been met by submitting a Stormwater Management Checklist to the City's Public Works Department prior to the issuance of grading permits. This would minimize the amount of stormwater runoff from new development and redevelopment sites within the planning area.

The City is also planning to upgrade existing storm drains and build new detention basins and pump stations to serve the buildout of the General Plan 2042, as described in detail in the Stormwater Master Plan. The City is currently divided into 16 hydrologically distinct subbasins, which will be expanded to 21 subbasins at buildout. Each subbasin will have a system of conveyance facilities and regional stormwater detention basins to reduce peak flows and improve water quality prior to discharge to the CCID and GWD canals.

With the implementation of these provisions for new development and redevelopment projects and the construction of regional detention basins, there would not be a significant increase in stormwater runoff to the City's storm drain system such that new discharge agreements would be required with CCID and GWD. The construction of stormwater facilities, implementation of BMPs, and preparation of related plans would serve to minimize any potential impacts. Additionally, the City's Public Works Department implements capital improvement projects, as described in the City's latest Adopted Budget and Capital Improvement Plan (CIP).³⁰ The City's CIP for the fiscal year 2020 to 2021 includes storm drain pump station improvements, landscape/irrigation improvements, and the purchase of land for a new storm drain basin. Improvements to existing storm drain infrastructure as well as planned expansion of the stormwater system would reduce discharge impacts to canals owned and operated by CCID and GWD.

In addition, the proposed Parks, Open Space, and Conservation (P) Element and Public Facilities and Services (PFS) Element contains goals, policies, and actions that require local planning and development decisions to consider impacts related to stormwater and stormwater facilities. The following General Plan goals, policies, and actions would serve to minimize potential adverse impacts related to stormwater:

- **Goal P-9.** Protect and restore water quality in and around Los Banos

³⁰ City of Los Banos, 2021. Adopted Budget Fiscal Year 2020-2021.

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- **Policy P-P9.1.** Protect the quality of stormwater that discharges into areas in and around Los Banos.
- **Policy P-P9.3.** Require the use of enhanced stormwater control facilities that provide additional filtration of stormwater to remove pollutants prior to discharge to pastureland or the Grassland Water District and other water districts.
- **Policy P-P9.4.** Work with the San Joaquin River Exchange Contractors (SJREC) Groundwater Sustainability Plan (GSP) group to offset increases in water demand based on projected population growth by identifying, analyzing, and implementing projects jointly with the SJREC to maximize the regional benefits. The City will develop projects to offset overdraft, including; 1) storm water capture, 2) demand reduction through reduced watering, 3) surface water transfer, 4) purchasing groundwater credits, 5) participation in recharge projects.
- **Goal S-2.** Protect the community from risks to lives and property posed by flooding and stormwater runoff.
 - **Policy S-P2.1.** Require new development to prepare hydrologic studies and implement appropriate mitigation measures to minimize surface water run-off and reduce the risk of flooding.
 - **Policy S-P2.2.** Require developers to provide for the ongoing maintenance of detention basins.
 - **Action S-A2.1.** Determine, locate, and improve deficiencies in the existing drainage infrastructure in partnership with regional and federal agencies.
 - **Action S-A2.2.** Maintain and regularly update the Storm Drain Master Plan.
- **Goal PFS-3.** Ensure a resilient supply of fresh, safe water to serve existing and future needs of the city.
 - **Policy PFS-P3.7.** Require all development projects to submit a landscaping plan.
 - Commercial and public right-of-way, and park projects will be required to submit planting plans, irrigation plans, irrigation schedules and water use estimates for City approval prior to issuance of building permits;
 - Industrial projects will be required to submit plans for water recycling and explain how water use will meet requirements of the National Pollutant Discharge Elimination System program during the plan review process. They will also be required to submit irrigation plans for proposed landscaping.
- **Goal PFS-4.** Achieve a sustainable stormwater drainage system that meets the existing and future needs of the city.
 - **Policy PFS-P4.1.** Require green infrastructure improvements in new private developments.
 - **Policy PFS-P4.2.** Where possible, incorporate green infrastructure improvements in public improvement projects by the City.
 - **Action PFS-A4.1.** Create an incentive program to promote improvement of existing residential, commercial, and industrial developments and structures with green infrastructure improvements.
- **Goal PFS-5.** Ensure that adequate, safe wastewater treatment capacity is available to serve existing and future needs of the city.

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- **Policy PFS-P5.1.** Design stormwater and wastewater collection and treatment facilities to serve expected buildout of the areas served by these facilities.
- **Policy PFS-P5.3.** Encourage the use of reclaimed water for irrigation and landscaping purposes.

Green infrastructure encompasses a variety of water management practices that capture, filter, and reduce stormwater flows. Some types of green infrastructure include green roofs, bioswales, rain gardens, planter boxes, trees, permeable pavements, collection basins, and stormwater recapture. Green infrastructure may also include improvements and restoration of existing land features, such as expanding parks, greening public land and schoolyards, or creek and wetland restoration. Green infrastructure improvements can be implemented by public improvement projects as well as incorporated into private development projects.

The proposed project also includes the proposed Annexation Ordinance that, as described in detail in Chapter 3, *Project Description*, of this Draft EIR, states the application eligibility criteria and the findings necessary for approval. The City must find that new development will fully fund construction of all improvements needed both on- and off-site to mitigate its impacts on utility infrastructure. The proposed Annexation Ordinance also describes the required content of Specific Plans in order for those areas to be annexed into the city limit. All specific plans must include the location and specifications for drainage facilities needed to serve new development consistent with City infrastructure master plans. Specific plans for residential development must identify drainage facilities that utilize green infrastructure or are designed as natural waterways wherever possible and consistent with public safety considerations.

Implementation of the General Plan 2042 goals, policies, and actions that ensure adequate infrastructure and the regulatory provisions in the Phase II Small MS4 permit that limit runoff from new development would ensure that the proposed project would not result in significant increases in runoff. Although new storm drain facilities and regional detention basins are planned with implementation of the General Plan 2042, these future projects would be subject to project-specific regulatory and environmental review. In addition, the City will continue to repair, rehabilitate, and upgrade the storm drain system through implementation of the City's CIP and potential future development projects would also be required to pay storm drainage development impact fees, pursuant to the LBMC Section 9-2.1301. Therefore, impacts with respect to stormwater infrastructure would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

UTIL-8	Implementation of the proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to stormwater facilities.
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The analysis of cumulative storm drainage impacts considers the area surrounding the City and the EIR Study Area. Cumulative impacts can occur when impacts that are significant or less than significant from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable future projects within a similar geographic area.

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As discussed previously, development within the EIR Study Area would require conformance with State and local policies that would reduce hydrology and infrastructure construction impacts to less-than-significant levels. Any new development within the city would be subject on a project-by-project basis to independent project review as well as compliance with City policies and ordinances, 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 LID measures, and review by the City's Public Works Department to integrate measures to reduce potential stormwater drainage and flooding impacts.

The area surrounding the City of Los Banos and the EIR Study Area is primarily agricultural land or wetlands with no associated storm drain systems. The Central Valley RWQCB regulates discharges from runoff or leaching of irrigation water and/or stormwater from irrigated lands through the Irrigated Lands Regulatory Program. Therefore, the stormwater control program and storm drain improvements implemented by the City would not directly or adversely impact the surrounding area.

In combination with past, present, and reasonably foreseeable projects, proposed development and redevelopment within the EIR Study Area would not result in a cumulatively considerable impact to stormwater infrastructure and cumulative impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

4.16.4 SOLID WASTE

4.16.4.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

Resource Conservation and Recovery Act of 1976

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 Regulations

Sanitary District Act of 1923

The Sanitary District Act of 1923 (Health and Safety Code Section 6400 *et seq.*) authorizes the formation of sanitation districts and enforces the sanitation districts to construct, operate, and maintain facilities for

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the collection, treatment, and disposal of wastewater. This Act was amended in 1949 to allow the sanitation districts to also provide solid waste management and disposal services, including refuse transfer and resource recovery.

California Integrated Waste Management Act (AB 939)

California's Integrated Waste Management Act of 1989 (AB 939) required that cities and counties divert 50 percent of all solid waste from landfills as of January 1, 2000 through source reduction, recycling, and composting. AB 939 also established a goal for all California counties to provide at least 15 years of ongoing landfill capacity. To help achieve this, this Act requires that each city and county prepare a Source Reduction and Recycling Element to be submitted to the Department of Resources Recycling and Recovery (CalRecycle).

In 2007, SB 1016 amended AB 939 to establish a per capita disposal measurement system. The per capita disposal measurement system is based on two factors: a jurisdiction's reported total disposal of solid waste divided by the jurisdiction's population. CalRecycle sets a per capita disposal rate target 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.

Organic Waste Methane Emissions Reduction Act (Senate Bill 1383)

In September 2016, SB 1383 was signed into law establishing methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants in various sectors of California's economy. SB 1383 establishes goals to reduce the landfill disposal of organics by achieving a 50 percent reduction in the 2014 level of statewide disposal of organic waste by 2020 and a 75 percent reduction by 2025. SB 1383 grants CalRecycle the regulatory authority to achieve the organic waste disposal reduction targets and establishes an additional target that at least 20 percent of currently disposed edible food be recovered for human consumption by 2025. Methane emissions resulting from the decomposition of organic waste in landfills are a significant source of greenhouse gas emissions contributing to global climate change. Organic materials—including waste that can be readily recycled or composted—account for a significant portion of California's overall waste stream.

Mandatory Commercial and Multi-Family Residential Recycling Requirements

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. Businesses that produce four or more cubic yards of solid waste per week or multifamily residential dwellings of five or more units are covered by this regulation. Under AB 341, businesses and multifamily dwellings must separate recyclables from trash and either subscribe to recycling services, self-haul their recyclables, or contract with a permitted private recycler.

Mandatory Commercial Organics Recycling

AB 1826, which was enacted in 2014, mandates organic waste recycling for businesses and multifamily dwellings with five or more units. The commercial organics recycling law took effect on April 1, 2016, and organic waste includes food waste, green waste, landscape and pruning waste, nonhazardous wood

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waste, and food-soiled paper waste that is mixed in with food waste. Previously, businesses and multifamily residences of five or more units that generated four or more cubic yards per week of solid waste (including recycling and organic waste) had to arrange for organic waste recycling services. However, the law contained a 2020 trigger that if the statewide goal of 50 percent reduction in organic waste as compared to 2014 had not been met, the threshold for mandatory compliance would cover businesses that generate two or more cubic yards of solid waste per week. This is the threshold that is currently being enacted.

California Solid Waste Reuse and Recycling Access Act

The California Solid Waste Reuse and Recycling Access Act requires development projects to set aside areas for collecting and loading recyclable materials. This Act required CalRecycle to develop a model ordinance for adoption by any local agency that provides adequate areas for the collection and loading of recyclable materials for development projects. Local agencies are required to adopt the model, or an ordinance of their own, that establishes standards including space allocation for the collection and loading of recyclable materials.

CALGreen Building Code

Sections 4.408 and 5.408, Construction Waste Reduction Disposal and Recycling, mandate 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. CALGreen requires developers to prepare and submit a Construction Waste Management Plan for on-site sorting of construction debris, which is submitted to the City for approval. The Construction Waste Management 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.
- Identify the diversion facility where the material collected can be taken.
- Identify construction methods employed to reduce the amount of waste generated.
- Specify that the amount of materials diverted shall be calculated by weight or volume, but not by both.

Local Regulations

Merced Countywide Integrated Waste Management Plan

The California Integrated Waste Management Act of 1989 (AB 935) requires each county to prepare and adopt a Countywide Integrated Waste Management Plan (CIWMP). The CIWMP is a State-mandated plan prepared by Merced County Regional Waste Authority. The plan identifies solid waste facilities within Merced County and describes the countywide plan for reaching the State-mandated 50 percent recycling goal. Waste reduction and disposal facilities in the county that require solid waste facility permits must conform to policies and siting criteria in the CIWMP. The CIWMP includes, by reference, source reduction and recycling elements, household hazardous waste elements, and non-disposal facility elements as well

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as a plan that describes countywide diversion programs and landfill disposal needs. The elements must be reviewed every five years and revised if necessary. The latest five-year review report for the CIWMP was submitted by Merced County Regional Waste Authority on March 2021.

In addition, each city, county, or regional agency must prepare an annual report for submittal to CalRecycle that summarizes its progress in reducing solid waste as required by Public Resources Code Section 41821. Once every two or four years (depending on the compliance schedule), CalRecycle conducts its own jurisdictional review of the annual reports to determine if the jurisdiction has met the Integrated Waste Management Act goals.

Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives that pertain to solid waste collection and disposal in Los Banos. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions are found in Title 3, *Finance*, and Title 6, *Sanitation and Health*, and Title 8, *Building Codes*:

- **Title 3, Finance, Article 1, *General*.** Section 3-10.330, *Recycled Products Procurement*, states that the City of Los Banos will purchase recycled products whenever such products perform satisfactorily and are available at a reasonably competitive price. The section further describes the steps that will be taken by each City department to procure, identify, and evaluate the use of recycled materials.
- **Title 6, Chapter 3, *Solid Waste Collection and Disposal*.** This chapter states that every occupied property within the city must receive solid waste collection and disposal services, with associated billing. The requirements under Chapter 3 are implemented by the Public Works Department. The chapter also provides information on solid waste collection charges, prohibitions against littering, and times specified for setting out containers. Chapter 3.1 also describes the requirements of the curbside recycling program that is mandatory for all single-family and multi-family residents, the responsibilities of the recycling company and customers regarding appropriate containers, and the recycling rate and charges. Chapter 3.2, describes the organic waste disposal reduction program and requires all single-family and multi-family dwellings and commercial businesses to place organic waste, consisting of green waste and food waste, in the green containers for pickup. Commercial edible food generators and food recovery organizations and services have additional requirements under Chapter 3.2.
- **Title 8, Building Regulations, *Sewer Impact Development Fees*.** With adoption of the California Green Building Standards Code, 2019 Edition, the City requires that all construction projects submit a Construction Waste Management Plan that documents the diversion of construction waste and debris in compliance with the CALGreen Building Code requirements.

Existing Conditions

Solid Waste Collection

As of July 2021, the City has entered into a new solid waste collection agreement with Mid Valley Disposal (MVD). The MVD provides weekly service to containers with three separate carts for trash, mixed recyclables and organic waste. Under the new contract, trash is sent to Billy Wright Landfill for disposal.

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However, MVD has their own recycling and organics processing facilities and will process these materials directly. The closest MVD materials recycling facility (MRF) and transfer station to Los Banos is located at 15300 W. Jensen Avenue in Kerman, California. It was recently expanded to increase tonnage from 500 to 1,500 tons/day and to include construction and demolition debris processing and crushing, green waste chipping, grinding and composting, and anaerobic digesters.

Landfill

The trash collected by MVD in Los Banos is shipped to Billy Wright Landfill. The landfill is owned and operated by Merced County Regional Waste Management Authority (MCRWMA) and is regulated under Waste Discharge Requirements (WDRs) Order No. R5-2011-0061. The landfill is located at 17173 South Billy Wright Road, approximately 4.5 miles west of Los Banos. Approximately 172 acres are dedicated to landfill operations, with a maximum permitted throughput of 1,500 tons/day and a remaining capacity of 11 million tons. The estimated closure date is December 31, 2054.

Solid Waste Diversion and Recycling

Compliance with AB 939 is measured by comparing the CalRecycle target disposal rates for residents and employees to actual disposal rates. The latest reported target disposal rates for the MCRWMA, of which Los Banos is a member, in 2020 were 10.7 pounds per day (ppd) for residents and 38.8 ppd for employees. The actual disposal rates were 6 ppd for residents and 21 ppd for employees.³¹ Therefore, solid waste diversion goals for Los Banos and Merced County are in compliance with AB 939.

4.16.4.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would result in significant impacts related to solid waste if it would:

1. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
2. Comply with federal, State, and local management and reduction statutes and regulations related to solid waste.
3. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to solid waste facilities.

³¹ CalRecycle, 2022. *Countywide, Regionwide, and Statewide Jurisdiction Diversion/Disposal Progress Report*, accessed at <https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/DiversionDisposal> on May 8, 2022.

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4.16.4.3 IMPACT DISCUSSION

UTIL-9	Implementation of the proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
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The Merced County Regional Waste Management Authority (MCRWMA) owns and operates the two regional landfills within Merced County and reports annual solid waste disposal rates for the County to CalRecycle. The MCRWMA does not differentiate the amount of solid waste generated by each city or town within its jurisdiction. The proportion of waste generated by the City of Los Banos was determined by dividing the service population of Los Banos (i.e., residents plus employees) in 2021 by the service population of the County. The existing service population of Los Banos is approximately 15 percent of the County's service population. The 2021 landfill disposal rate for the County was 321,671 tons of waste.³² Assuming that 15 percent of the collected solid waste is generated by the City, this equals 48,251 tons/year under current conditions.

The service population within the EIR Study Area is anticipated to increase by 29,600 residents and 5,000 employees by the year 2042, which would result in an increase in solid waste of 33,293 tons/year. As shown in Table 4.16-8, *Solid Waste Landfill Disposal at Year 2042 Buildout*, this would result in a total of 81,544 tons/year that would be sent to landfills for disposal. This assumes that the current diversion rate for MCRWMA of approximately 70 percent remains the same over time. It is likely that with the expansion of organics and recycling programs, the diversion rate will increase in the future, resulting in a decrease in solid waste landfill disposal. The results are summarized in Table 4.17-7, *Solid Waste Landfill Disposal at Year 2042 Buildout*.

TABLE 4.16-7 SOLID WASTE LANDFILL DISPOSAL AT YEAR 2042 BUILDOUT

Area	Existing Service Population	Existing Solid Waste Generation (tons/year)	Service Population at Buildout	Percent Difference in Service Population at Buildout	Solid Waste Generation at Buildout (tons/year)
EIR Study Area	49,900	48,251	84,500	69% increase	81,544

Note: Service population is the sum of the total resident population (72,500) and employees (12,000).

A total of 81,544 tons/year would equate to about 272 tons/day (assuming 300 disposal days/year). This amount would be about 18 percent of the current excess capacity of 1,500 tons/day at Billy Wright Landfill. In addition, these calculations conservatively assume that current diversion rates remain the same and there is no increased diversion rate for organics and recycling.

Furthermore, all new development pursuant to the General Plan 2042 would need to comply with Section 4.408 of the 2019 CALGreen Building Code Standards, which requires that at least 65 percent of nonhazardous construction and demolition waste from nonresidential construction operations be

³² CalRecycle, 2021. RDRS Report 1: Overall Jurisdiction Tons for Disposal and Disposal Related Uses. <https://www2.calrecycle.ca.gov/RecyclingDisposalReporting/Reports/OverallJurisdictionTonsForDisposal>.

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recycled and/or salvaged for reuse. Development would also comply with the requirements of AB 341 that mandates recycling for commercial and multifamily residential land uses as well as schools and school districts. Additionally, businesses and multi-family dwellings that generate organic waste in amounts over a certain threshold are mandated to recycle organic waste in accordance with AB 1826. Therefore, solid waste facilities would be able to accommodate project-generated solid waste and impacts would be less than significant and no mitigation measures are required.

In addition, the proposed Public Facilities and Services (PFS) Element contains goals, policies, and actions that require local planning and development decisions to consider impacts related solid waste and solid waste facilities. The following General Plan goals, policies, and actions would serve to minimize potential adverse impacts related to solid waste:

- **Goal PFS-6.** Ensure adequate and sustainable solid waste management that meets the existing and future needs of the city and strives to reduce disposable waste over time.
 - **Policy PFS-P6.1.** Reduce volumes of solid waste generated in Los Banos through recycling and resource conservation measures, such as:
 - Requiring new and refurbished buildings be designed with on-site storage facilities for recycled materials to make recycling more convenient;
 - Using post-consumer recycled paper and other recycled materials in all City operations;
 - Supporting the commingled-recycling program; and
 - Continuing efforts to develop new specialized recycling programs for residential, commercial, industrial, and educational sectors.
 - **Policy PFS-P6.2.** Support waste reduction and recycling programs through public education, including writing articles on City websites, newsletters, and other forms of publications.
 - **Policy PFS-P6.3.** Work closely with the Merced County Regional Waste Management Authority to ensure adequate landfill space is available to meet projected growth.
 - **Action PFS-A6.1.** Assess the capacity of Billy Wright Landfill and prioritize planning for an early expansion of Billy Wright Landfill or identifying an alternative landfill space.

With continued compliance with the applicable regulations, leading to increased recycling and waste diversion and adherence to the General Plan Policies and Actions, anticipated rates of solid waste disposal from the proposed project would be *less than significant* with respect to permitted landfill capacity. No mitigation measures are required.

Significance without Mitigation: Less than significant.

UTIL-10	Implementation of the proposed project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.
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As previously discussed, MCRWMA, which serves the EIR study area, complies with State requirements to reduce the volume of solid waste through recycling and organic waste diversion. The MCRWMA's per capita disposal rates of 6 ppd per resident and 21 ppd per employee are well below the CalRecycle targets

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of 10.7 ppd per resident and 38.8 ppd per employee. In addition, all development pursuant to the General Plan 2042 would comply with Section 4.408 of the 2019 CALGreen Building Code Standards, which requires that at least 65 percent of nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse. Development would also comply with the requirements of AB 341 that mandates recycling for commercial and multifamily residential land uses as well as schools and school districts. Additionally, businesses pursuant to the General Plan 2042 that generate organic waste in amounts over a certain threshold would be mandated to recycle organic matter in accordance with AB 1826. Therefore, the City and waste service providers would comply with all applicable federal, State, and local solid waste regulations and impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

UTIL-11	Implementation of the proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to solid waste facilities.
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The area considered for cumulative impacts to solid waste disposal facilities is the MCRWMA. As reported in Table 4.13-5, *Regional Growth Projections*, in Chapter 4.13 *Population and Housing*, of this Draft EIR, the 2042 projected service population (population plus employees) for Merced County is 494,705, which amounts to an increase of 127,044, or approximately 35 percent, over the County's existing service population of 367,661. Since the MCRWMA generated 321,671 tons of solid waste in 2021, it is assumed that in 2042 the MCRWMA would generate approximately 434,256 tons, or 1,448 tons per day. The two landfills (Billy Wright Landfill and Highway 59 Landfill) that receive the majority of the solid waste from the MCRWMA have an excess capacity of 1,500 tons/day each and could provide for the projected growth.³³ In addition, new development within Merced County would comply with Section 4.408 of the 2019 CALGreen Building Code Standards, which requires that at least 65 percent of nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse. This would reduce the volume of solid waste transported to the landfills. Therefore, with continued compliance with the applicable regulations and an increase in recycling and landfill diversion rates, solid waste cumulative impacts would be *less than significant* and no mitigation measures are required.

Significance without Mitigation: Less than significant.

³³ CalRecycle, 2019. SWIS Facility/Site Activity Details accessed on May 17, 2022 at <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2908?siteID=1863>.

4.17 WILDFIRE

This chapter describes the potential wildfire impacts associated with the adoption and implementation of the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential wildfire impacts, and identifies General Plan policies that could minimize any potentially significant impacts.

4.17.1 ENVIRONMENTAL SETTING

4.17.1.1 REGULATORY FRAMEWORK

This section summarizes key regulations that identify wildfire hazard areas and reduce wildfire risks to new and existing structures.

State Regulations

Fire Hazard Severity Zones and Responsibility Areas

The California Department of Forestry and Fire Protection (CAL FIRE) publishes maps recommending fire hazard severity zones (FHSZ) for every California county. The maps identify lands in California as falling within one of the following management areas: local responsibility area (LRA), state responsibility area (SRA), or federal responsibility area (FRA). Within each of these areas, a single agency has direct responsibility: in LRAs, local fire departments or fire protection districts are responsible; in SRAs, CAL FIRE is responsible; in FRAs, federal agencies, such as the United States Forest Service, National Park Service, Bureau of Land Management, United States Department of Defense, United States Fish and Wildlife Service, or Department of the Interior are responsible.

Within the LRAs, CAL FIRE designates lands as being within a Very High FHSZ or not. The LRA maps also show the Very High FHSZ and non-Very High FHSZ areas within the SRA and FRA, but do not differentiate lands within the SRA and FRA from each other (that is, SRA and FRA areas are mapped together).

Within the SRA, CAL FIRE designates Moderate FHSZs, High FHSZs, and Very High FHSZs. The SRA maps also indicate which lands are within the LRA and which are within the FRA, but do not show the hazard zones within the LRA and FRA.

California Office of Emergency Services

The California Office of Emergency Services (Cal OES) was established on January 1, 2009, and created by Assembly Bill (AB) 38, which merged the duties, powers, purposes, and responsibilities of the former Cal OES with those of the Governor's Office of Homeland Security. Cal OES is responsible for the coordination of overall State agency response to major disasters in support of local government. Cal OES is responsible for ensuring the State's readiness to respond to and recover from all hazards—natural, human-made, emergencies, and disasters—and for assisting local governments in their emergency preparedness,

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response, recovery, and hazard mitigation efforts. In 2018, Cal OES completed a State Hazard Mitigation Plan, which designates FHSZs and wildland-urban interface (WUI) areas.¹

California Public Utilities Commission

In 2007, wildfires in southern California were ignited by overhead utility power lines and aerial communication facilities near power lines. In response, the California Public Utilities Commission (CPUC) began considering and adopting regulations to protect the public from fire hazards posed by overhead power lines and nearby aerial communication facilities. The CPUC published a fire threat map—under Rulemaking 15-05-006, following procedures in Decision 17-01-009, revised by Decision 17-06-024—that adopted a work plan for the development of a utility high fire-threat district where enhanced fire safety regulations in Decision 17-12-024 apply.² The fire regulations require electrical utilities to:³

- Prioritize the correction of safety hazards.
- Correct nonimmediate fire risks in “Tier 2” (elevated fire threat) areas in the CPUC high fire-threat district within 12 months, and in “Tier 3” (extreme fire threat) areas within 6 months.
- Maintain increased clearances between vegetation and power lines in the high fire-threat district.
- Maintain stricter wire-to-wire clearances for new and reconstructed facilities in Tier 3 areas.
- Conduct annual inspections of overhead distribution facilities in rural areas of Tier 2 and Tier 3 areas.
- Prepare a fire prevention plan annually if overhead facilities exist in the high fire-threat district.

California Building Code

The California Building Code (CBC), contained in Part 2 of Title 24 of the California Code of Regulations, identifies building design standards, including those for fire safety. Typical fire safety requirements of the CBC include the installation of fire sprinklers in all new high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

Chapter 7A of the CBC, *Materials and Methods for Exterior Wildfire Exposure*, prescribes building materials and construction methods for new buildings in a FHSZ (referred to in the CBC as a “Wildland-Urban Interface Fire Area”). Chapter 7A contains requirements for roofing; attic ventilation; exterior walls; exterior windows and glazing; exterior doors; decking; protection of underfloor, appendages, and floor projections; and ancillary structures.

¹ California Office of Emergency Management, 2018, California State Hazard Mitigation Plan, https://www.caloes.ca.gov/HazardMitigationSite/Documents/002-2018%20SHMP_FINAL_ENTIRE%20PLAN.pdf, accessed January 18, 2022.

² California Public Utilities Commission, <https://ia.cpuc.ca.gov/firemap/>, accessed January 18, 2022.

³ California Public Utilities Commission, press release: CPUC Adopts New Fire-Safety Regulations, <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M201/K352/201352402.PDF>, accessed January 18, 2022.

California Fire Code

The California Fire Code (CFC) incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. The CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Typical fire safety requirements include installation of sprinklers in all high-rise buildings; 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.

Chapter 49 of the CFC, *Requirements for Wildland-Urban Interface (WUI) Fire Areas*, prescribes construction materials and methods in FHSZs. These requirements generally parallel CBC Chapter 7A.

California Public Resources Code

California Public Resources Code (PRC) Sections 4291 et seq. require that brush, flammable vegetation, or combustible growth be removed within 100 feet of buildings on or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land covered in flammable materials.

California PRC Section 4290 requires the State Board of Forestry and Fire Protection to adopt regulations implementing minimum fire safety standards for defensible space that would be applicable to lands within the SRA and lands within Very High FHSZs.

SRA Fire Safe Regulations outline basic wildland fire protection standards and can decrease the risk of wildfire events. SRA Fire Safe Regulations do not supersede local regulations that equal or exceed minimum State regulations. The State statute for wildfire protection is PRC Section 4290. Requirements in the PRC include information on:

- Road standards for fire equipment access
- Standards for signs identifying streets, roads, and buildings
- Minimum private water supply reserves for emergency fire use
- Fuel breaks and greenbelts
- Basic emergency access

California PRC Section 4442 regulates the use of internal combustion engines that use hydrocarbon fuels on forest-covered land, brush-covered land, and grass-covered land. Internal combustion engines, like those used in construction, must be equipped with a spark arrester, which is a device used for removing and retaining carbon and other flammable particles from the exhaust flow for engines that use hydrocarbon fuels. These engines must be maintained in effective working order or be constructed, equipped, and maintained for the prevention of fire.

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California Government Code

Chapter 6.8 (Sections 51175 through 51189) of the California Government Code relates to Moderate, High, and Very High FHSZs and establishes that the prevention of wildfires is a statewide concern.

California Government Code Section 51182 requires that occupied dwellings or structures upon or adjoining a mountainous area, forest-covered land, shrub-covered land, grass-covered land, or land covered with flammable material within a Very High FHSZ (designed by a local agency pursuant to Section 51179) shall maintained at all times as follows:

- Defensible space of 100 feet around the structure shall be maintained. Fuel modification necessary shall be determined taking into consideration the flammability of the building materials, building standards, location, and type of vegetation. A greater distance of defensible space may be required by State law, local ordinance, rule, or regulation, or by an insurance company.
- Portions of trees extending within 10 feet of an outlet of a chimney or stovepipe shall be removed.
- Trees, shrubs, or other plants adjacent to or overhanging a building shall be maintained free of dead or dying wood.
- The roof of the structure shall be maintained free of leaves, needles, or other vegetative materials.
- For construction of a dwelling or structure that will be occupied or rebuilding an occupied dwelling or occupied structure damaged by a fire in that zone, for which a building permit is required, certification shall be obtained from the local building official that a structure compliance with all applicable State and local building standards.

2019 Strategic Fire Plan for California

CAL FIRE produced the *2019 Strategic Fire Plan for California*, which contains goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments.⁴ The *2019 Strategic Fire Plan for California* focuses on fire prevention and suppression activities to protect lives, property, and ecosystems. In addition, CAL FIRE provides regulatory oversight to enforce State fire laws and delivers a land use planning and defensible space inspection program to local governments across the state.⁵

Assembly Bill 38 (2019)

AB 38, approved in 2019, amended California Civil Code Section 1102.6f to require that, on or after January 1, 2021, any seller of real property in a High or Very High FHSZ (as identified by CAL FIRE) shall provide a disclosure to the buyer (if the home was constructed before January 1, 2010), including the following statement:

⁴ California State Board of Forestry and Fire Protection, 2019, 2019 Strategic Fire Plan for California, <https://www.fire.ca.gov/media/5504/strategicplan2019-final.pdf>, accessed January 18, 2022.

⁵ California State Board of Forestry and Fire Protection, 2019, 2019 Strategic Fire Plan for California, <https://www.fire.ca.gov/media/5504/strategicplan2019-final.pdf>, accessed January 18, 2022.

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This home is located in a high or very high fire hazard severity zone and this home was built before the implementation of the Wildfire Urban Interface building codes which help to fire harden a home. To better protect your home from wildfire, you might need to consider improvements. Information on fire hardening, including current building standards and information on minimum annual vegetation management standards to protect homes from wildfires, can be obtained on the internet website <http://www.readyforwildfire.org>.

Additionally, the seller shall include a list of features that may make a home vulnerable to wildfire and flying embers, and disclose which of the listed features, if any, the seller is aware exist on the home.

If, pursuant to Government Code Section 51182, certification is required from the local building official that a structure compliance with all applicable State and local building standards, the seller shall provide the buyer with a copy of the final inspection report or information on where a copy of the report may be obtained.

After July 1, 2025, the seller shall also provide a list of low-cost retrofits (developed and listed pursuant to California Government Code Section 51189), as well as disclose which listed retrofits, if any, have been completed during the time that the seller owned the property.

AB 38 also amended Civil Code Section 1102.19 to require that, on and after July 1, 2021, a seller of real property in a High or Very High FHSZ (as identified by CAL FIRE) shall provide documentation to the buyer stating that the property is in compliance with Public Resources Code Section 4291 or local vegetation management ordinances.

AB 38 added Article 16.5 to the California Government Code to establish the *California Wildfire Mitigation Financial Assistance Program* through a joint powers agreement between the California Office of Emergency Services and CAL FIRE. Through the joint powers agreement, the agencies shall develop and administer a program to encourage: cost-effective structure hardening and retrofitting to create fire-resistant homes, businesses, and public buildings; and facilitate vegetation management, the creation and maintenance of defensible space, and other fuel modification activities that provide neighborhood or communitywide benefits against wildfire.

Lastly, AB 38 amended Section 4123.7 of the Public Resources Code to require the Natural Resources Agency to review the regional capacity of counties containing a Very High FHSZ. The review shall include an identification of entities engaged in fire prevention work, a review of fire prevention organizational or capacity deficits, and recommendations to improve regional capacity and collaboration.

Regional Regulations

Merced County Multi-Jurisdictional Hazard Mitigation Plan

The Merced County Office of Emergency Services, together with several jurisdictions in Merced County, including the City of Los Banos, prepared the *Multi-jurisdictional Hazard Mitigation Plan* (MJHMP). The MJHMP was prepared in accordance with the Disaster Mitigation Act of 2000 and followed the Federal Emergency Management Agency (FEMA) 2011 Local Hazard Mitigation Plan guidance. The MJHMP,

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adopted in 2014, includes hazard mitigation goals, strategies, and priorities, and provides a comprehensive assessment of the area's hazards and vulnerabilities. The MJHMP is a guide to hazard mitigation throughout Merced County and serves as a tool to help decision makers direct hazard mitigation activities and resources. In the context of the MJHMP, mitigation is an action that reduces or eliminates long-term risk to people and property from hazards, including those occurring naturally and those caused by humans such as wildfire.

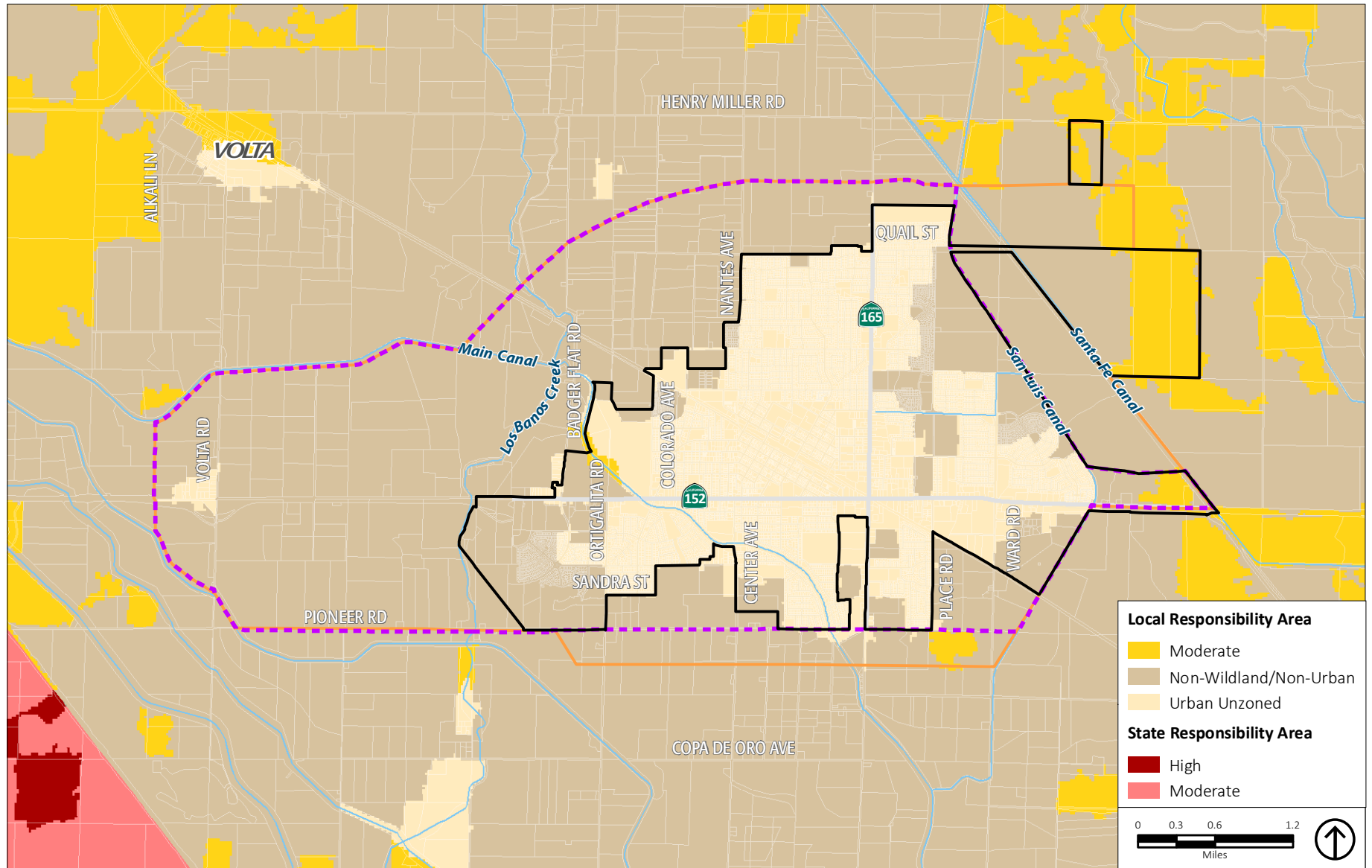
The County released a draft update to the MJHMP in 2021 (herein referred to as the "2021 Draft MJHMP"). The hazard mitigation plan for Los Banos is Annex E of the 2021 Draft MJHMP and includes a section on wildfire hazards that includes a maps wildfire threat areas and wildfire hazard classes in and around Los Banos. A description of the mitigation actions for wildfires include:⁶

- **Participate in Countywide Public Education Program.** A natural hazards education and awareness program in Merced County would be a valuable tool for sharing information with residents. Implementation ideas include sharing information online and conducting workshops. The county will partner with special districts, the cities, and other entities to provide awareness and education on hazards and steps to mitigate.
- **Integrate Local Hazard Mitigation Plan into Safety Element of General Plan.** Recognizing the potential duplication of effort over evaluation of the same issues, efforts to update the Health and Safety Element will be conducted in coordination with the multi-hazard mitigation plan and to also ensure AB2140 Compliance. Integration and coordination of both plans provides General Plan policy direction for development activity. Potential loss reductions in the \$1000s as any new development within the county will be considered within the context of the county's Health and Safety Element.
- **Review Building Codes.** Periodically review building codes for updates and enhancements and ensure necessary capabilities for enforcement.
- **Wildfire Fuels.** Implement and Monitor Weed Abatement Program to Reduce Wildfire Fuels.
- **Emergency Preparation.** Prepare a Shelter, and Emergency Provision Plan to Ensure Adequate Space and Supplies.

The 2021 Draft MJHMP has identified the types and levels of fire responsibility areas for the Environmental Impact Report (EIR) Study Area. This is shown on Figure 4.17-1, *Fire Hazard Severity Zones*.

⁶ Merced County, 2021, *Merced County Hazard Mitigation Plan Update 2021-2026, Annex E: City of Los Banos*, https://web2.co.merced.ca.us/pdfs/oes/AnnexE_CityOfLosBanos_DRAFT_9-24-21.pdf, accessed January 25, 2022.

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Source: Merced County, 2018; CALFIRE, 2022; PlaceWorks, 2022.

City Limit Proposed Urban Growth Boundary (UGB) Proposed Sphere of Influence (SOI)

Figure 4.17-1
Fire Hazard Severity Zones

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Los Banos Municipal Code

The Los Banos Municipal Code (LBMC) includes various directives pertaining to wildfire. The LBMC is organized by title, chapter, and section, and in some cases articles. Most provisions related to wildfire impacts are included in Title 4, *Public Safety*, and Title 8, *Building Regulations*, as follows:

- **Chapter 3, *Fire Prevention Code*.** This chapter includes provisions to prevent fire and protect the residents and visitors of Los Banos from fire related hazards.
 - **Section 4-3.01, *Adoption of the California Fire Code 2019 Edition*.** This section adopts the CFC in its entirety, subject, however, to the amendments, additions, and deletions set forth in this chapter. The purpose of the CFC is to prescribe regulations and building standards in order to protect life and property from fire, explosion, earthquake, and other disasters and to provide for permits.
 - **Section 4-3.08, *Fire Zones*.** Under this section a Fire District is established, thereby declaring the entire area of the city as a Fire District.
- **Chapter 1, *Building Codes*.** This chapter adopts the following codes as described:
 - **Section 8-1.01, *Adoption of the California Building Code 2019 Edition*.** This section adopts the CBC in its entirety, subject, however, to the amendments, additions, and deletions set forth in this chapter. The purpose of the CBC is to prescribe regulations governing the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of all buildings and structures within the city. The CBC includes the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

4.17.1.2 EXISTING CONDITIONS

Wildfire Background

Wildfires burn in many types of vegetation, including forest, woodland, scrub, and grassland. Many species of native California plants are adapted to fire, and fire can play an important role in the health of these ecosystems.⁷ Wildfires have grown in frequency and intensity throughout the West during the past several years, particularly in California, where prolonged drought and hot, dry temperatures have been common.

⁷ California Department of Forestry and Fire Prevention, 1999, *Learning to Live with Fire*, https://www.fire.ca.gov/media/8657/live_w_fire.pdf, accessed January 27, 2022.

Wildfire Causes

Though wildfires can occur from natural origins (e.g., lightning) and can play an important role in certain ecosystems, a 2017 study that evaluated 1.5 million wildfires in the United States between 1992 and 2012 found that humans were responsible for igniting 84 percent of wildfires and accounted for 44 percent of acreage burned.⁸ Human-caused wildfires can be from debris burning, arson, equipment use, and power-line failures.

An analysis of US Forest Service wildfire data from 1986 to 1996 determined that 95 percent of human-caused wildfires and 90 percent of all wildfires occurred within half a mile of a road; and that about 61 percent of all wildfires and 55 percent of human-caused wildfires occurred within about 650 feet of a road. The study concluded that the increase in human-caused ignition greatly outweighed the benefits of increased access for firefighters.⁹

The number of large wildfires in California (i.e., greater than 1,000 acres) has increased from approximately 35 to 55 per year since the 1960s.¹⁰ At the same time, the average mean temperature and length of fire season are increasing. The 2020 fire season was a record-setting year of wildfires, with the state's first "gigafire" (burning more than 1 million acres). By the end of 2020, 10,000 fires had burned more than 4.2 million acres (more than 4 percent of the state's land), making 2020 the largest wildfire season recorded in California's modern history.¹¹ The wildfire season had an unusually early start in 2021, in the midst of an ongoing drought and historically low rainfall and reservoir levels. In July 2021, more than three times as many acres had burned compared to the previous year through that date, with drought, extreme heat, and reduced snowpack contributing to the severity of fires.¹² The encroachment of urban development into wildland areas has been another contributing factor that increases the risk of human-caused wildfires.

Secondary Effects

Secondary effects of wildfire include additional hazards such as poor air quality, landslides, and power outages.

- **Air Pollution.** Smoke is made up of a complex mixture of gases and fine particles produced when wood and other organic materials burn. The biggest health threat from smoke is from fine particles that can penetrate the lungs and cause a range of health problems, from burning eyes and a runny nose to aggravated chronic heart and lung diseases. Exposure to particulate pollution is even linked to

⁸ Balch, Jennifer; Bradley, Bethany; Abatzoglou, John, et. al. 2017, Human-Started Wildfires Expand the Fire Niche Across the United States. Proceedings of the National Academy of Sciences: Volume 114 No. 11, <https://www.pnas.org/content/pnas/114/11/2946.full.pdf>, accessed January 27, 2022.

⁹ Pacific Biodiversity Institute, 2007, Roads and Wildfires, http://www.pacificbio.org/publications/wildfire_studies/Roads_And_Wildfires_2007.pdf, accessed January 27, 2022.

¹⁰ State Board of Forestry and Fire Protection and California Department of Forestry and Fire Prevention, 2018, 2018 Strategic Fire Plan for California, https://osfm.fire.ca.gov/media/5590/2018-strategic-fire-plan-approved-08_22_18.pdf, page 7.

¹¹ California Department of Forestry and Fire Protection, 2020 Fire Season, <https://www.fire.ca.gov/incidents/2020/>, accessed January 27, 2022.

¹² California Department of Forestry and Fire Protection, 2021 Fire Season, <https://www.fire.ca.gov/incidents/2021/>, accessed January 27, 2022.

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premature death. Some populations are more sensitive than others to smoke, including people with heart or lung diseases, the elderly, children, people with diabetes, and pregnant women.¹³

- **Landslides and Debris Flows.** When supporting vegetation is burned away, hillsides become prone to destabilization and erosion, increasing the risk of landslides. Postfire landslide hazards include fast-moving, highly destructive debris flows in the period immediately following wildfires in response to high-intensity rainfall, and flows that are generated over longer periods that are accompanied by root decay and loss of soil strength. Fires increase the potential for debris flows by increasing the imperviousness of soil so that it repels water and by destroying vegetation that would slow and absorb rainfall, and whose roots would help stabilize soil.¹⁴ The burning of vegetation and soil on slopes more than doubles the rate that water will run off into watercourses.¹⁵ Postfire debris flows are particularly hazardous because they can happen with little warning, sweep away objects in their paths with great force, strip vegetation, block drainages, damage structures, and endanger human life. Debris flows differ from mudflows in that debris flows are composed of larger particles. Postfire debris flows are most common in the two years after a fire; they are usually triggered by heavy rainfall. It takes much less rainfall to trigger debris flows from burned areas than from unburned areas. Areas with steep slopes are typically within debris flow areas.
- **Power Outages.** Power outages relating to wildfire can occur either from deliberate shutoff of power in order to reduce the risk of wildfires that might occur from power lines damaged during dry, hot winds, or as a result of wildfire damage to utilities. This has obvious consequences, such as the inability to operate vulnerable and critical systems for day-to-day life, such as fuel, water, communication, heating and cooling, and other systems that require electricity.

Wildland-Urban Interface

According to Cal OES, a WUI is defined as any area where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.¹⁶ Historically, homes in these WUI areas were particularly vulnerable to wildfires because they were built with a reliance on fire department response for protection rather than fire resistance, survivability, and self-protection. However, in the recent past, a number of serious wildfires have highlighted the need for regulating development in these hazardous areas. Developments in the WUI exacerbate fire occurrence and fire spread in several ways, including:

- Increased numbers of human-caused wildfires.
- Wildfires become harder to fight.
- Firefighting resources are diverted from containing the wildfire to protecting lives and homes.

¹³ AirNow, 2017, How Smoke from Fires Can Affect Your Health, <https://www.airnow.gov/air-quality-and-health/how-smoke-from-fires-can-affect-your-health/>, accessed January 27, 2022.

¹⁴ United States Geological Survey, 2018, New post-wildfire resource guide now available to help communities cope with flood and debris flow danger, https://www.usgs.gov/center-news/post-wildfire-playbook?qt-news_science_products=1#qt-news_science_products, accessed January 27, 2022.

¹⁵ California Department of Conservation, Post-Fire Debris Flow Facts, <https://www.conservation.ca.gov/index/Pages/Fact-sheets/Post-Fire-Debris-Flow-Facts.aspx>, accessed on January 27, 2022.

¹⁶ California Governor's Office of Emergency Services, 2018, *2018 California State Hazard Mitigation Plan*, Section 8.1, page 515.

- Letting natural fires burn becomes impossible, leading to buildup of fuel and increasing wildfire hazard further.¹⁷

Wildfire History

There have not been any State or federal disaster declarations in the City of Los Banos or Merced County related to wildfire in the past. Fire starts in the county typically involve fuels that are “flashy,” and fires are usually quickly extinguished.¹⁸

Wildfire Hazards

The severity of the wildfire hazard is based on fuel classification, topography (steepness of slope), and critical fire weather frequency. According to CAL FIRE, a fire hazard is defined as a “measure of the likelihood of an area burning and how it burns.”

Wildfire fuels in the Los Banos vicinity mainly consist of croplands and grasses.¹⁹ There are some brush, pine, and grass fuels, which are ranked as moderate fuel hazards, primarily in the area west of Interstate 5. The Los Banos Annex of the Merced County 2021 Draft MJHMP includes a map of wildfire threat areas that identifies low and moderate threat areas in and around Los Banos. The nearest high threat areas are mapped to the southeast of the city and along Los Banos Creek.²⁰ The riparian forest corridor to the west of Los Banos Creek represents the largest single risk due to the amount of tree cover and undergrowth. Wildfire hazards zones and State and Local Responsibility Areas are shown in Figure 4.17-1, *Fire Hazard Severity Zones*.

Los Banos and adjacent areas of Merced County are within the LRA. Within LRAs, CAL FIRE designates lands as being within a Very High FHSZ or not. There are no areas in the Very High FHSZ in the LRA in or around Los Banos. The nearest area within the SRA is the land on the west side of Interstate 5, approximately 4 miles west of the city; this area within the SRA consists primarily of land within the Moderate and High FHSZ.²¹

¹⁷ Radeloff, Volker; Helmers, David; Kramer, H., et al., 2018, Rapid Growth of the US Wildland-Urban Interface Raises Wildfire Risk. Proceedings of the National Academy of Sciences: Volume 115 No. 13, <https://www.pnas.org/content/pnas/115/13/3314.full.pdf>, accessed January 27, 2022.

¹⁸ Merced County, 2021, *Merced County Hazard Mitigation Plan Update 2021-2026, Annex E: City of Los Banos*, https://web2.co.merced.ca.us/pdfs/oes/AnnexE_CityOfLosBanos_DRAFT_9-24-21.pdf, page 16, accessed January 25, 2022.

¹⁹ Merced County, 2021, *Merced County Hazard Mitigation Plan Update 2021-2026, Annex E: City of Los Banos*, https://web2.co.merced.ca.us/pdfs/oes/AnnexE_CityOfLosBanos_DRAFT_9-24-21.pdf, page 16, accessed January 25, 2022.

²⁰ Merced County, 2021, *Merced County Hazard Mitigation Plan Update 2021-2026, Annex E: City of Los Banos*, https://web2.co.merced.ca.us/pdfs/oes/AnnexE_CityOfLosBanos_DRAFT_9-24-21.pdf, Figure 2-4, accessed January 25, 2022.

²¹ California Department of Forestry and Fire Prevention, FHSZ Viewer, <https://egis.fire.ca.gov/FHSZ/>, accessed January 19, 2022.

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No areas within Los Banos or adjacent areas of Merced County are located with the CPUC high fire-threat district. The nearest area within a high fire-threat district is the southeastern portion of Santa Clara County, approximately 18 miles west of the city; this area is within a Tier 2 high fire-threat district for elevated fire threat.²²

4.17.2 STANDARDS OF SIGNIFICANCE

As described in Section 4.17.1.2, *Existing Conditions*, Los Banos and the surrounding lands are not with the SRA or any mapped very high fire hazard areas. Consequently, the proposed project would not result in significant environmental impacts related to wildland fires and the following standards are not discussed further in this EIR.

If located in or near SRAs or lands classified as Very High FHSZs, the proposed project would result in a significant wildfire impact if it would:

1. Substantially impair an adopted emergency response plan or emergency evacuation plan.
2. 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.
3. 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.
4. 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.
5. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to wildfire.

4.17.3 IMPACT DISCUSSION

CAL FIRE has determined that the EIR Study Area possesses little or no wildfire risk and no impact would occur pursuant to the standards in the CEQA Guidelines identified in Section 4.17.2, *Standards of Significance*. The City recognizes that even though within the city, fuel loading is light and fire risk comes primarily from urban fires, not wildfires, there is some risk related to wildfires. The riparian forest corridor to the west of Los Banos Creek represents the largest single risk due to the amount of tree cover and undergrowth; this area is being managed with the implementation of Los Banos Creek flood-control measures. The City also recognizes that the greatest level of wildfire hazard is likely to occur at the edges of the city where residential homes abut grassland or open space. Adding development in these urban-rural interface areas could also increase wildfire risks.

²² California Public Utilities Commission, CPUC High Fire Threat District, <https://capuc.maps.arcgis.com/apps/webappviewer/index.html?id=5bdb921d747a46929d9f00dbdb6d0fa2>, accessed January 27, 2022.

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There are many resources available to address wildland fires should they arise, including the aforementioned CAL FIRE *2019 Strategic Fire Plan for California*, the CFC, MJHMP, and cooperative fire services from Los Banos Fire Department and Merced County Fire Department. In addition, the General Plan 2042 Land Use (LU) Element, Safety and Noise (S) Element, and Public Facilities and Services (PFS) Element contain goals, policies, and actions that require local planning and development decisions to consider potential impacts from wildfire as part of development. The following goals, policies, and actions, once adopted, would serve to minimize impacts from wildfire in the EIR Study Area and ensure that new development would not exacerbate wildfire hazards.

- **Goal LU-4.** Protect and enhance Los Banos' image and unique sense of place.
 - **Policy LU-P4-9.** Continue to require undergrounding of utilities in all new development.
- **Goal S-4.** Protect Los Banos' residents and businesses from potential wildfire and structural fire hazards through data-driven decision-making and community planning efforts.
 - **Policy S-P4.1.** Maintain a five- to six-minute response standard for fire service within a 1.5-mile radius of a fire station.
 - **Policy S-P4.2.** Require adequate firefighting infrastructure and access for emergency vehicles in all new development, including adequate street width, vertical clearance on new streets, high-visibility street signs in all conditions, and minimum water pressure necessary for sustained fire suppression.
 - **Policy S-P4.3.** Ensure Fire Department personnel are trained in wildfire prevention, response, and evacuation procedures.
 - **Action S-A4.1.** Assess the manpower, facility, and equipment needs of police and fire services as the city undergoes expansion to provide all residents with an optimal level of protection.
 - **Action S-A4.2.** Maintain mutual aid agreements with Merced County, Cal Fire, and nearby cities.
 - **Action S-A4.3.** Create a public awareness and weed abatement program to highlight the dangers of open burning and how homeowners can protect their properties from wildfires.
- **Goal S-6.** Minimize the risk of personal injury, property damage, and environmental damage from both natural and human-made disasters and improve natural disaster response capabilities through a variety of emergency preparedness measures.
 - **Policy S-P6.1.** Increase the resilience of important or critical-use structures (such as hospitals, schools, fire, police, cooling centers, and public assembly facilities, substations, and utilities) through input during site selection and a comprehensive investigation into existing fire, flooding, and geotechnical conditions and to ensure that these facilities are operable both mid- and post-disaster events that affect Los Banos.
 - **Action S-A6.1.** Continue to participate in County led efforts to regularly update and implement the Merced County Multi-jurisdictional Hazard Mitigation Plan (MJHMP), consistent with guidelines of the Federal Emergency Management Agency (FEMA) and the Disaster Act of 2000.

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- **Action S-A6.2.** Work with owners and operators of critical-use facilities (i.e., hospitals, police stations, public assembly facilities, transportation services) to ensure that they can provide alternate sources of electricity, water, and sewerage in the event that regular utilities are interrupted in a disaster.
- **Action S-A6.3.** Maintain and improve current early-warning systems and response facilities (Local Emergency Operations Center, National Warning System, civil preparedness radio systems, etc.).
- **Action S-A6.4.** Coordinate regular emergency drills with City and County emergency service providers.
- **Action S-A6.5.** Collaborate and exchange information with other local, state, and federal agencies and with utility service providers in activities related to terrorism prevention and response.
- **Action S-A6.6.** Develop and adopt an emergency evacuation route network of roadways accounting for how natural hazards could impact the feasibility of each route and work with the County of Merced Office of Emergency Services to ensure that each route connects to regional evacuation routes.
- **Goal S-7.** Improve Los Banos' resilience to existing and future climate change hazards, such as drier conditions, warmer temperatures, flooding, increased wildfire risks, and increased energy use to address changing temperatures and weather patterns.
 - **Action S-A7.1.** Identify areas of the city where climate change is anticipated to create or increase hazard risks, such as flooding. Identify development methods to reduce hazard risks and increase the resilience of any projects in these areas.
 - **Action S-A7.2.** Pursue and support opportunities to retrofit and harden important sets of infrastructure, such as roadways, bridges, flood-control channels, telecommunications, and energy delivery systems.
 - **Action S-A7.3.** Update the Safety Element on a regular basis, as required by the California Government Code, in concert with the Los Banos' General Plan Housing Element to ensure the document's relevance to future safety conditions in the city. When updates to other safety documents occur, incorporate, and make the Safety Element consistent with these updates.
 - **Action S-A7.4.** Incorporate nature-based environmental design and green infrastructure (e.g., permeable surfaces to encourage natural drainage, drought-adapted species to reduce water consumption, plantings with strong root systems to reduce erosion) into existing and new development, as feasible.
 - **Action S-A7.5.** Collaborate on existing and future hazard risks stemming from climate change with Merced County and the Merced County Association of Governments.
 - **Action S-A7.6.** Continue to pursue local energy generation and resilience projects, such as the Wright Solar power plant, rooftop renewable energy systems, and battery storage systems.
 - **Action S-A7.7.** Pursue grant funding from programs, such as the California Department of Conservation's Best Practices Pilot Program, that increase the resilience and sustainability of future development in Los Banos.

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- **Goal PFS-2.** Provide public and cultural facilities that contribute to Los Banos' positive image, enhance community identity, and meet the civic and social needs of residents.
 - **Policy PSF-P2.4.** Work with healthcare providers to maintain a full range of healthcare facilities and services designed to meet regional and community needs.
 - **Action PFS-A2.2.** Explore the feasibility of participating in the Wildfire Smoke Clean Air Centers for Vulnerable Populations Incentive Pilot Program administered by the State of California to retrofit ventilation systems of public facilities to serve as clean air centers during wildfires and other smoke events.
- **Goal PFS-3.** Ensure a resilient supply of fresh, safe water to serve existing and future needs of the city.
 - **Policy PFS-P3.3.** Require new development to document that water supply capacity, quality, and infrastructure are in place prior to approval of new development.

Implementation of these goals and policies, as well as compliance with state, regional, and local regulations required to reduce the risk of wildfire impacts, and the many resources available to address wildland fires should they arise, would ensure that wildfire-related impacts would be *less than significant* and no mitigation is required.

Significance without Mitigation: Less than significant.

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5. Alternatives to the Proposed Project

The following discussion is intended to inform the public and decision makers of feasible alternatives to the proposed project that would avoid or substantially lessen any of the significant effects of the proposed project. The California Environmental Quality Act (CEQA) Guidelines set forth the intent and extent of alternatives analysis to be provided in an environmental impact report (EIR). Section 15126.6(a) of the CEQA Guidelines states that:

An EIR shall describe a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives, which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

5.1 PURPOSE

The alternatives evaluated in this Draft EIR were developed consistent with Section 15126.6(b) of the CEQA Guidelines, which states that:

Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the 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.

5.2 PROJECT OBJECTIVES

As stated above, the range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the proposed project. As listed in Chapter 3, *Project Description*, of this Draft EIR, the primary purposes of the proposed project are to plan for the growth and conservation of Los Banos over a 20-year time horizon and to achieve a more equitable, sustainable, and prosperous future for all residents. Objectives related specifically to growth include focusing growth in Downtown, capitalizing on existing infrastructure, and streamlining future development that is consistent with the proposed General Plan. This requires extending the buildout horizon to year 2042 and updating

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goals, policies, and actions so that they meet current State requirements and community priorities. The proposed project also includes policies and actions to enhance Downtown as a vibrant center, build a diversified job base, manage annexations to grow in an efficient manner, provide sites for housing and mixed-use development, improve environmental justice and community health, and prepare for adaptation and resilience to a changing climate. As part of this process, the City has identified eight key initiatives, which build upon the framework of the vision and goals of the existing General Plan and reflect the community's desires for the future of Los Banos. The following key initiatives will serve as the project objectives for the EIR.

- **Provide for balanced and sustainable growth.** Create and maintain a cohesive development pattern amidst the agriculture landscape, with clearly defined urban edges. An urban boundary is created to protect Los Banos' surrounding lands from sprawl, reduce the cost of extending costly infrastructure, and enhance the visual character of the city's edge. Land use policies are enacted to reduce incompatible land uses and ensure developments pay for their share of infrastructure, public facilities, and any environmental costs they might impose.
- **Create new jobs to develop the local economy.** Strive for more local jobs and an improved jobs/housing ratio. Land has been set aside in 'employment centers' at various parts of the city, and economic development initiatives have been proposed to help make Los Banos a desirable place to work and live.
- **Integrate neighborhoods and neighborhood centers.** Build quality neighborhoods and maintain a quality urban environment. Balanced neighborhoods include a mix of residential types and intensities and include activities and facilities that are used on a frequent basis—such as schools, stores, and parks. Land uses are designated to ensure balanced neighborhood development with a mix of uses and housing types, provision of parks and schools, and easy access to commercial activity centers.
- **Create a network of parks and open space.** In addition to neighborhood and community parks, create an interconnected network of pathways and trails. This system is envisioned to connect neighborhoods to one another and to create a pedestrian or bikeway linkage between parks, schools, neighborhood commercial centers, downtown, and employment centers.
- **Create a safe, efficient, and equitable circulation system for all users.** Establish a comprehensive set of principles and policies to enhance the existing system and promote a well-integrated and coordinated transit network and safe and convenient pedestrian and bicycle circulation. Establish a system of plantings, trees, and other amenities to add pleasant visual character to Los Banos' streets.
- **Provide ample retail and shopping opportunities.** Create quality retail outlets and a mix of retail sites to ensure jobs and sales tax revenue. These are intended to serve both local residents and a regional population and are to be accessible by both automobiles and pedestrians, depending on type and location.
- **Plan for environmental justice.** Senate Bill (SB) 1000, the Planning for Healthy Communities Act, was passed in 2016 and requires that General Plans address environmental justice for disadvantaged communities that exist within the planning area of the General Plan. California law defines "environmental justice" as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.

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- **Respond to State law requirements.** As previously described, the proposed General Plan 2042 builds off the current General Plan by incorporating similar topics and revising or adding new, goals, policies, and actions that are required by State law. Table 3-2, *General Plan 2042 Updates Required by State Law*, provides a list of the key State laws that are addressed in the General Plan 2042, a summary of the purpose of the law, and the element that addresses the law.

5.3 SELECTION OF A REASONABLE RANGE OF ALTERNATIVES

Section 15126.6(c) of the CEQA Guidelines states:

The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Additional information explaining the choice of alternatives may be included in the administrative record. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

5.3.1 ALTERNATIVES ANALYSIS

Two project alternatives and the comparative merits of the alternatives are discussed in this section in accordance with the CEQA Guidelines. All the potential environmental impacts associated with adoption and implementation of the proposed project were found to be either less than significant without mitigation or less than significant with mitigation, except for impacts to agricultural resources (AG), air quality (AIR), greenhouse gas (GHG) emissions, noise (NOI), and transportation (TRAN), which were found to be significant and unavoidable with mitigation measures at the program level. Although the proposed General Plan 2042 results in significant and unavoidable impacts, the identification of these program-level impacts do not preclude the finding of less-than-significant impacts for subsequent development proposals analyzed at the project level that do not exceed the applicable project-level thresholds. The program-level significant and unavoidable impacts include the following:

- **Impact AG-1:** Implementation of the General Plan 2042 would result in the conversion of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland land to non-agricultural land uses.
- **Impact AG-2:** Implementation of the General Plan 2042 would result in the loss of agricultural land under the Williamson Act.
- **Impact AG-4:** The General Plan 2042, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to the conversion of farmland of concern under CEQA and Williamson Act properties to non-agricultural uses.
- **Impact AIR-1:** Implementation of the General Plan 2042 would result in the generation of substantial operational (long-term) criteria air pollutant emissions that would exceed the San Joaquin Valley

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Unified Air Pollution Control District regional significance thresholds and would therefore not be considered consistent with the existing Air Quality Management Plans.

- **Impact AIR-2a:** Operation of development projects that could occur from implementation of the General Plan 2042 would generate emissions that would exceed the San Joaquin Valley Unified Air Pollution Control District regional significance thresholds for volatile organic compounds (VOC), nitrogen oxides (NO_x), and carbon monoxide (CO).
- **Impact AIR-2b:** Construction activities associated with buildout of the General Plan 2042 would generate substantial short-term criteria air pollutant emissions that would exceed the San Joaquin Valley Unified Air Pollution Control District regional significance thresholds and cumulative contribute to the nonattainment designations of the San Joaquin Valley Air Basin.
- **Impact AIR-3a:** Implementation of the General Plan 2042 could expose air quality sensitive receptors to substantial toxic air contaminant concentrations from non-permitted sources during operation.
- **Impact AIR-3b:** Construction activities associated with potential future development from implementation of the General Plan 2042 could expose nearby air quality sensitive receptors to substantial concentrations of toxic air contaminants during construction.
- **Impact AIR-5:** Implementation of the General Plan 2042 would generate a substantial increase in emissions that exceeds the San Joaquin Valley Unified Air Pollution Control District significance thresholds and would cumulatively contribute to the nonattainment designations and health risk in the San Joaquin Valley Air Basin. *(Note this is a cumulative impact.)*
- **Impact GHG-1:** Implementation of the General Plan 2042 would not meet the long-term greenhouse gas emissions reduction goal under Executive Order (EO) S-03-05 or substantial progress toward carbon neutrality goals under EO B-55-18.
- **Impact GHG-3:** Implementation of the General Plan 2042 would not meet the long-term greenhouse gas emission reduction goal under Executive Order (EO) S-03-05 or substantial progress toward carbon neutrality goals under EO B-55-18. *(Note this is a cumulative impact.)*
- **Impact NOI-1a:** Construction activities associated with potential future development projects from implementation of the General Plan 2042 could expose noise sensitive receptors in close proximity to a construction site to construction noise that exceeds 80 a-weighted decibel (dBA) equivalent continuous noise level over an 8-hour period ($L_{eq(8hr)}$).
- **Impact NOI-1b:** Implementation of the General Plan 2042 traffic noise level increases of up to 2.6 a-weighted decibel (dBA) community noise equivalent level (CNEL) are estimated along State Route 152 between Badger Flat Road and Ortigalita Road which would exceed the City's 1.5 dBA increase threshold.
- **Impact NOI-4a:** The General Plan 2042, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to construction noise.
- **Impact NOI-4b:** The General Plan 2042, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to roadway noise on State Route 152 between Badger Flat Road and Ortigalita Road. *(Note this is a cumulative impact.)*
- **Impact TRAN-1:** Implementation of the General Plan 2042 would result in a significant vehicle mile traveled (VMT) impact for VMT per service population due to forecast land use growth through 2042,

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based on a comparison of the VMT rate increment for VMT per service population to the corresponding average baseline rates for the Merced County region.

- **Impact TRAN-5:** Implementation of the General Plan 2042 would cumulatively contribute to regional VMT.

The alternatives were selected because of their potential to further reduce and avoid these impacts. The alternatives to be analyzed in comparison to the proposed project include:

- Alternative A: No Project Alternative (Current General Plan)
- Alternative B: Focused Growth

The first alternative is the CEQA-required “No Project” Alternative, which assumes the current General Plan 2030 remains in effect and is not replaced by the proposed project. Alternative B assumes that the same amount of households, residential units, population, and jobs would occur as under the proposed project, but would allow for multifamily housing in the Office/Professional and Employment Campus land use designations, and increase the maximum floor-area ratios (FAR)¹ in the Neighborhood Commercial, Regional Commercial, Office/Professional, and Employment Campus to 0.75. In addition, Alternative B would maintain the currently adopted 2004 Sphere of Influence (SOI).

5.3.2 ASSUMPTIONS AND METHODOLOGY

The alternatives analysis is presented as a comparative analysis to the proposed project. The development intensity for the alternatives varies from the proposed project. The estimated growth under each alternative, as well as the proposed project, is provided in Table 5-1, *Forecasted Additional Growth for the Proposed Project and the Alternatives to the Proposed Project*.

TABLE 5-1 FORECASTED ADDITIONAL GROWTH FOR THE PROPOSED PROJECT AND THE ALTERNATIVES TO THE PROPOSED PROJECT

Category	Proposed Project	Alternative A: No Project ^a	Alternative B: Focused Growth
Households	8,300	17,000 ^b	8,300
Residential Units	8,900	17,900 ^b	8,900
Population	29,600	54,200 ^b	29,600
Jobs	5,000	41,900 ^c	5,000

Notes:

a. Based on a review of existing conditions and projected trends, the City is not on track to meet the 2030 buildout estimates of the current General Plan and is accordingly revising local growth projections to be more in line with regional growth.

b. See Table 1-2, *Populations, Households, and Jobs at Plan Buildout*, of the General Plan 2030, page 1-10.

c. See Table 1-5, *Additional Private Sector Employment*, of the General Plan 2030, page 1-12.

Source: City of Los Banos, 2021.

¹ FAR is a ratio of the building square footage permitted on a lot to the net square footage of the lot. For example, on a site with 10,000 square feet of net land area, a FAR of 1.0 will allow 10,000 square feet of building floor area to be built.

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The alternatives analysis assumes that all applicable mitigation measures recommended for the proposed project and the proposed General Plan 2042 goals, policies, and actions would apply to Alternative B, but would not apply to Alternative A. The following discussion compares the environmental impacts of the alternatives with those of the proposed project for each of the environmental topics analyzed in detail in Chapter 4, *Environmental Analysis*, of this Draft EIR. The impacts of each alternative are classified as less than (<), similar or comparable to (=), or greater than (>) the level of impacts associated with the proposed project. Table 5-2, *Comparison of Impacts of the Project Alternatives and the Proposed Project*, summarizes the relative impacts of each of the alternatives compared to the proposed project.

TABLE 5-2 COMPARISON OF IMPACTS OF THE PROJECT ALTERNATIVES AND THE PROPOSED PROJECT

Topic	Proposed Project ^a	Alternative A: No Project	Alternative B: Focused Growth
Aesthetics	LTS	>	=
Agricultural Resources	SU	>	<
Air Quality	SU	>	<
Biological Resources	LTS	>	<
Cultural and Tribal Cultural Resources	LTS	>	<
Energy	LTS	>	=
Geology and Soils	LTS	>	=
Greenhouse Gas Emissions	SU	>	<
Hazards and Hazardous Materials	LTS	>	=
Hydrology and Water Quality	LTS	>	>
Land Use and Planning	LTS	=	=
Noise	SU	>	<
Population and Housing	LTS	>	=
Public Services and Recreation	LTS	>	=
Transportation	SU	>	<
Utilities and Service Systems	LTS	>	>
Wildfire	LTS	>	<

Notes:

^a The impacts listed in this column represent the highest significance determination for each respective standard of significance.

LTS	Less Than Significant	<	Fewer impact in comparison to the proposed project
LTS/M	Less Than Significant with Mitigation	=	Similar impact in comparison to the proposed project
SU	Significant and Unavoidable	>	Greater impact in comparison to the proposed project

5.4 ALTERNATIVE A: NO PROJECT (CURRENT GENERAL PLAN)

5.4.1 DESCRIPTION

Pursuant to CEQA Guidelines Section 15126.6(e)(1), the No Project Alternative is required as part of the “reasonable range of alternatives” to allow decision makers to compare the impacts of approving the proposed project with the impacts of taking no action or not approving the proposed project. Consistent with CEQA Guidelines Section 15126.6(e)(3)(A), when the project is the revision of a plan, as in this case, the no project alternative will be the continuation of the existing plan. Under Alternative A, potential future development in Los Banos would continue to be subject to existing policies, regulations, development standards, and land use designations of the existing General Plan 2030 and Zoning Code.

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As described in Chapter 3, *Project Description*, of this Draft EIR, the existing General Plan 2030 was adopted in 2009 and included a horizon year of 2030. While this horizon year is still 8 years away, in the years between 2009 and 2022 conditions inside and outside of Los Banos changed, including the economic recovery from the Great Recession, a worsening housing crisis in California, and the COVID-19 pandemic of 2020. A number of state and federal laws guiding general plan policies have also been updated during this time.

Many of the community issues vetted in General Plan 2030 are still relevant, well addressed, and do not require major changes. However, Alternative A would not incorporate new topics that are now required by State law, such as environmental justice, and would not revise relevant policies and actions to meet those requirements.

Pursuant to CEQA Guidelines Section 15126.6(e)(3)(C), the City of Los Banos, acting as the lead agency, should analyze the impacts of the No Project Alternative by projecting what would reasonably be expected to occur in the foreseeable future if the proposed project were not approved, based on current plans and consistent with available infrastructure and community services. Implementation of the No Project Alternative assumes that development growth throughout the city would remain unchanged until the buildout horizon year 2042, which is consistent with other regional plans, including Merced County Association of Governments (MCAG) *Regional Transportation Plan and Sustainable Communities Strategy for Merced County* (2018 RTP/SCS).

Future development permitted under the No Project Alternative would not increase development potential in Los Banos beyond what was considered in the existing General Plan 2030 and analyzed in the associated EIR (State Clearinghouse No. 2006121055), but rather assumes the remaining development growth shown in Table 5-1, *Forecasted Additional Growth for the Proposed Project and Alternatives to the Proposed Project*, would occur through 2042. No General Plan land use designations or Zoning District changes would be required to accommodate these uses. Table 5-3, *2021 to 2042 Growth Under the Proposed Project and Alternative A*, shows the difference between 2021 to 2042 growth of the proposed project compared to Alternative A. As shown in Table 5-3, Alternative A could result in more residential growth and job growth when compared to the proposed project.

TABLE 5-3 2021 TO 2042 GROWTH UNDER THE PROPOSED PROJECT AND ALTERNATIVE A

Category	Proposed Project	Alternative A: No Project	Difference between the Proposed Project and Alternative A
Households	8,300	17,000 ^a	8,700 more households
Residential Units	8,900	17,900 ^a	9,000 more residential units
Population	29,600	54,200 ^a	24,600 more population
Jobs	5,000	41,900 ^b	36,900 more jobs

Notes:

a. See Table 1-2, *Populations, Households, and Jobs at Plan Buildout*, of the General Plan 2030, page 1-10.

b. See Table 1-5, *Additional Private Sector Employment*, of the General Plan 2030, page 1-12.

Source: City of Los Banos, 2021.

Alternative A would include the Sphere of Influence (SOI) shown on the current General Plan Land Use Map. Furthermore, Alternative A would assume the current Urban Growth Boundary (UGB), which extends beyond the city limit to the north, south, and west, but remains within the city limit to the east.

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The current UGB encompasses approximately 13,000 acres or 20 square miles, which is about 800 acres or 1 square mile greater than the proposed UGB.

Alternative A would not formally establish an Area of Interest (AOI). As described in Chapter 3, *Project Description*, the AOI is not an area considered for urban development or annexation by the City within the 20-year planning horizon of the General Plan 2042, but rather the City believes these areas bear a relationship to its planning and that the Los Banos community should be able to participate in land use and transportation decisions.

Alternative A would also not adopt the proposed Annexation Ordinance. As described in Chapter 3, *Project Description*, the Annexation Ordinance provides a set of standards the City is required to follow for the consideration of future annexation proposals. It states the application eligibility criteria and the findings necessary for approval.

None of the applicable mitigation measures recommended for the proposed project would apply to Alternative A.

5.4.2 IMPACT DISCUSSION

The potential environmental impacts associated with Alternative A when compared to the proposed project are described herein.

5.4.2.1 AESTHETICS

As described in Chapter 4.1, *Aesthetics*, of this Draft EIR, the proposed project would not result in any significant impacts related to aesthetics and no mitigation measures are required.

Like the proposed project, potential future development in the EIR Study Area under Alternative A is anticipated to occur in the form of infill/intensification on sites either already developed and/or underutilized, and/or in close proximity to existing development, where future development would have a lesser impact on scenic vistas. The proposed General Plan 2042 does not include any new land use changes that would increase building height beyond what is previously accounted for under the current General Plan 2030.

There are no officially designated scenic view corridors or vistas within the EIR Study Area. Therefore, implementation of either scenario would have a substantial adverse effect on a scenic vista and impacts would be *similar*.

There are no State-designated scenic highways within, or in the vicinity of, the EIR Study Area. Therefore, implementation of either scenario would not damage existing scenic resources within a state scenic highway and impacts would be *similar*.

Applicable future projects under both scenarios would be subject to design review prior to project approval pursuant to *Community Design Standards*, and comply with the various planning documents that govern scenic quality in the city, as described in Section 4.1.1.1, *Regulatory Framework*, in Chapter 4.1.

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However, Alternative A would not realize the new or modified goals, policies, or actions that were prepared as part of the proposed General Plan 2042 update. For example, a new policy that requires enhancing aesthetics and urban design along Pacheco Boulevard. Thus, unlike the proposed project, which includes these new policies, development under this alternative would not provide the same level of design consideration related to the visual character or quality of a project site and its surrounding; thus, aesthetic impacts related to these topics would be *greater* than those of the proposed project.

Similar to the proposed project, Alternative A would result in new lighting sources that could result in sources of glare. Potential future development under both scenarios would be required to comply with best management practices in CALGreen and Los Banos Municipal Code (LBMC) provisions that ensure new land uses do not generate excessive light levels and reduce light and glare spillover from future development to surrounding land uses. However, Alternative A would not realize the new or modified goals, policies, or actions that were prepared as part of the proposed General Plan 2042 update, such as the new policies that require preventing excessive light spillover and glare, and lighting plans for projects with exterior lighting. Because Alternative A would result in more development than the proposed project, greater impacts related to light or glare would occur and impacts would be *greater* when compared to the proposed project.

Overall, development in the EIR Study Area under Alternative A would be more and would be guided by the current policies and regulations that guide development in Los Banos, and as such, impacts related to aesthetics would be *greater* when compared to the proposed project.

5.4.2.2 AGRICULTURAL RESOURCES

As determined in Chapter 4.2, *Agricultural Resources*, the proposed project would result in significant and unavoidable impacts to agricultural resources.

According to the Department of Conservation, Farmland Mapping and Monitoring Program geographic information system (GIS) data from 2018, the EIR Study Area contains 5,254 acres of Prime Farmland, 1,317 acres of Farmland of Statewide Importance, and 895 acres of Unique Farmland, and 319 acres of these lands are under Williamson Act contracts. Under both scenarios, Alternative A and the proposed project, there is the potential for these agricultural lands to be converted to non-agricultural uses. However, there is greater development potential under Alternative A when compared to the proposed project; therefore, impacts would be *greater* under Alternative A when compared to the proposed project.

5.4.2.3 AIR QUALITY

As described in Chapter 4.3, *Air Quality*, of this Draft EIR, the proposed project would result in significant and unavoidable impacts during the operational phase even with implementation of Mitigation Measures AIR-2a and AIR-3a. Implementation of Mitigation Measure AIR-4 would ensure operation impacts related to odors would be less than significant. Implementation of Mitigation Measures AIR-2b and AIR-3b would reduce significant impacts from construction, but impacts at the program level would remain significant and unavoidable.

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As described in Chapter 4.3, *Air Quality*, of this Draft EIR, implementation of the proposed project would conflict with the San Joaquin Valley Unified Air Pollution Control District (SJVAPCD) clean air plans (see Section 4.3.1.3, *Regulatory Setting*, in Chapter 4.3, for the complete list of clean air plans), would pose an operational community risk or hazard, and would not generate any substantial odors. Additionally, at a program level, implementation of the proposed project would result in significant and unavoidable impacts related to construction and operation of potential future development, as well as the cumulative contribution to the non-attainment designations of the San Joaquin Valley Air Basin (SJVAB).

Alternative A would continue development as allowed under the existing General Plan 2030, which would result in more redevelopment in the EIR Study Area. Development under both scenarios would be subject to the SJVAPCD Indirect Source Review Rule 9510 and would be required to prepare a detailed air quality impact assessment on a project-by-project basis. Additionally, future development under both scenarios could result in construction activities in close proximity to residential and other sensitive land uses, thus, temporarily elevating concentrations of toxic air contaminants and diesel-PM_{2.5} in the vicinity of sensitive land uses. While the regulatory setting mitigating construction impacts is the same under both scenarios, more development would occur under Alternative A; therefore, construction impacts would be *greater* when compared to the proposed project.

Due to the magnitude and intensity of development accommodated by the proposed General Plan 2042, as well as regional air quality influences beyond the control of Los Banos, impacts associated with consistency with the San Joaquin Valley Unified Air Pollution Control District (SJVAPCD) would remain significant and unavoidable at the program level. Because there is greater development potential under Alternative A when compared to the proposed project, impacts under Alternative A when compared to the proposed project are considered to be *greater* in this respect.

Under Alternative A, more development would occur; therefore, more direct and indirect criteria air pollutant emissions from energy (e.g., natural gas use), and area sources (e.g., aerosols and landscaping equipment) would occur. Under both scenarios, subsequent environmental review of applicable development projects would be required to assess potential impacts under SJVAPCD project-level thresholds. As demonstrated in Chapter 4.15, *Transportation*, the total vehicle miles traveled (VMT) per service population would be *greater* under existing conditions than the proposed project (29.0 Total VMT per service population (2021) compared to 26.2 VMT per service population (2042). This is because the proposed project includes a different mix of land uses and densities and more infill development, which would reduce VMT from automobiles. Alternative A would not include the goals, policies, and actions, or land use mix of the proposed project, which would concentrate development in existing urban areas and therefore could lessen the net benefit gained from siting future development near public transit and existing services. Therefore, Alternative A would not necessarily reduce trips for these reasons and would also increase trips from more development, which are the major source of criteria air pollutants from the proposed project. Therefore, air quality impacts from the operation of these uses would be considered *greater* when compared to the proposed project.

Like the proposed project, Alternative A is not the type of project that would result in significant impacts from odor and impacts would be *similar* under both scenarios.

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Overall, because Alternative A would result in less infill development that would create a higher VMT per service population, air quality impacts under Alternative A would be *greater* when compared to the proposed project.

5.4.2.4 BIOLOGICAL RESOURCES

As described in Chapter 4.4, *Biological Resources*, of this Draft EIR, the proposed project would result in less-than-significant impacts to biological resources.

The EIR Study Area is not within any local, regional, or State Habitat Conservation Plan areas. Therefore, neither scenario would conflict with the conservation strategy in any Habitat Conservation Plan or Natural Community Conservation Plan and impacts would be *similar*.

The City of Los Banos General Plan is the primary planning document for the City of Los Banos. The existing General Plan 2030 and the proposed revisions to policies and actions under the Parks, Open Space, and Conservation Element are intended to ensure consistency between the General Plan and Zoning Ordinance and would not conflict with local policies and ordinances protecting biological resources because the General Plan is the overriding planning document for Los Banos. Accordingly, impacts to biological resources under Alternative A would be *similar* when compared to the proposed project.

Although potential future development under the proposed project could potentially affect animal and plant species identified as candidate, sensitive, or special-status species, proposed goals, policies, and actions; proposed mitigation measures; and adherence to all federal, state, and local regulations relating to biological resources would fully mitigate any potential impacts. The proposed project would also have a less-than-significant impact on riparian habitats, wetlands, and wildlife movement corridors because compliance with proposed goals, policies, and actions; proposed mitigation measures; and adherence to all federal, state, and local regulations relating to biological resources would fully mitigate any potential impacts. Further, potential future development under the proposed project would primarily occur as infill/intensification on sites either already developed and/or underutilized, and/or in close proximity to existing development, which reduces the likelihood that special-status plant and animal species could be impacted. Infill development also reduces the likelihood that the riparian habitats, wetlands, and wildlife movement corridors could be impacted.

The existing General Plan 2030 encourages development to occur in existing urbanized areas, which would mean that Alternative A would also reduce the likelihood of development in areas of the EIR Study Area that are more likely to cause an adverse impact to a sensitive riparian habitat, wetland, or wildlife movement corridor. New and modified General Plan 2042 policies and actions require project applicants to avoid nests of native birds in active use, in compliance with state and federal regulations, assessments of biological resources prior to approval of any development within 300 feet of any creeks, wetlands, sensitive habitat areas, or areas of potential special-status species, and develop buffer zones around Los Banos Creek Corridor and the Grassland wetland areas to the east to enhance groundwater recharge and minimize impacts to habitat and species. No similar requirement currently exists in the General Plan 2030 conditions and these standards would not be realized under the Alternative A scenario; therefore, impacts would be *greater* when compared to the proposed project.

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Potential future development under both scenarios could introduce taller buildings, which would increase impacts to birds resulting from colliding into buildings. The proposed project's potential bird collision impacts would be reduced with implementation of a new General Plan 2042 policy, which would set standards for bird-safe design measures. These standards would not be realized under the Alternative A scenario; therefore, impacts would be *greater* when compared to the proposed project.

In summary, impacts to biological resources from potential future development as allowed under Alternative A would be *greater* when compared to the proposed project.

5.4.2.5 CULTURAL AND TRIBAL CULTURAL RESOURCES

As described in Chapter 4.5, *Cultural and Tribal Cultural Resources*, of this Draft EIR, the proposed project would result in less-than-significant impacts to cultural and tribal cultural resources and no mitigation measures are required.

Under Alternative A, new development would continue throughout the city under existing plans and regulations. As explained in Chapter 4.5, there are existing prehistoric, architectural, historical, or archaeological resources in the EIR Study Area that could all be impacted by new demolition, inappropriate modification, or inappropriate new construction under the proposed project or Alternative A. Like the proposed project, Alternative A would be subject to the procedures of conduct following the discovery of human remains set forth in California Health and Safety Code, Public Resources Code and the California Code of Regulations. Because more development would occur under the Alternative A scenario, the potential to impact these resources would be *greater* when compared to the proposed project. Additionally, the proposed project includes new and modified General Plan goals, policies, and actions in the Land Use Element and the Parks, Open Space, and Conservation Element which require additional actions that would further protect historic resources in the EIR Study Area. For example new Land Use policies require the City to ensure that both new development and exterior remodels of existing buildings are compatible with nearby buildings, public spaces, and cultural/historic resources in scale, orientation, and materials, and safeguard and leverage Los Banos' agricultural heritage for the benefit of the community. New Land Use Element actions include requiring the City to establish zoning, review procedures, and fees that encourage rehabilitation, renovation, preservation, and reuse of Downtown buildings and to amend LBMC Title 9, *Planning and Zoning*, to provide flexibility for redevelopment of historic structures in the Downtown to meet current needs while maintaining the overall historic value. New Parks, Open Space, and Conservation goal requires the City to protect and restore the cultural and historic resources of Los Banos. New policies require the City to preserve any tribal cultural resources that are found within the Los Banos Planning Area and to require consultation with Native American tribes during General Plan amendments or updates, Specific Plans, or Specific Plan amendments.

Under Alternative A, these goals, policies, and actions would not be adopted. Therefore, Alternative A would have *greater* impacts to cultural resources as compared to the proposed project when following common protocols.

ALTERNATIVES TO THE PROPOSED PROJECT**5.4.2.6 ENERGY**

As described in Chapter 4.6, *Energy*, of this Draft EIR, the proposed project would not result in any significant impacts related to energy and no mitigation measures are required.

All development that occurs in the State is required to comply with best management practices regulated in the California Green Building Code and Building and Energy Efficiency Standards, which ensure new development would not result in the wasteful or inefficient use of energy. Additionally, neither the proposed project nor Alternative A would introduce a level of development and population growth that would be anticipated to necessitate the construction of new energy supply facilities or transmission infrastructure.

Additionally, the proposed project includes new and modified General Plan goals, policies, and actions in the Land Use Element and the Circulation Element which require additional actions that would further ensure energy efficiency in the EIR Study Area. These include requiring the City to establish zoning, review procedures, and fees that encourage rehabilitation, renovation, preservation, and reuse of Downtown buildings, reduce VMT through measures such as improvements to public transportation and carpooling and offering safe routes for pedestrians and bicyclists, promote and encourage carpool, vanpool, and guaranteed ride home with employers to discourage single occupancy vehicles while encouraging alternative modes of transportation such as carpooling, and participate in regional efforts to develop guidelines for calculating the projected VMT associated with future development projects and transportation improvements. Because transportation is a leading source of energy use in Los Banos, these new and modified goals, policies, and actions promote energy conservation from the transportation sector by increasing safe and sufficient transit, bicycle, and pedestrian facilities to reduce automobile use and VMT.

More development would occur under the Alternative A scenario, so energy consumption from construction would be *greater* when compared to the proposed project. However, newer buildings would be more energy efficient, thus energy impacts from new buildings would be more energy efficient under Alternative A when compared to the proposed project. Ultimately, as described in the air quality discussion, energy use from VMT would be greater under Alternative A because there is more development potential when compared to the proposed project. Furthermore, under Alternative A, the net benefits from the new and modified goals, policies, and actions would not be realized through 2042 buildout. Therefore, overall energy demand and consumption would be *greater* under Alternative A when compared to the proposed project.

5.4.2.7 GEOLOGY AND SOILS

As described in Chapter 4.7, *Geology and Soils*, of this Draft EIR, the proposed project would result in less-than-significant impacts related to geology and soils and no mitigation measures are required.

Future development under both Alternative A and the proposed project would be subject to the same federal, state, and local regulations that address and prevent hazards associated with geology, soils, and seismicity. Both General Plan 2030 and proposed General Plan 2042 encourage development in urbanized settings where there is less likelihood for impacts from geologic hazards to occur. Although Alternative A

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would result in more overall development, compliance with existing regulations related to geologic and seismic safety would apply similarly to both future development under Alternative A and the proposed project. The proposed project includes a new policy in the Parks, Open Space, and Conservation Element that ensures greater protection of paleontological resources by requiring the City to prohibit the damage or destruction of paleontological resources, including prehistorically significant fossils, ruins, monuments, or objects of antiquity, that could potentially be caused by future development.

While, as described above, State and local regulations to reduce hazards related to geology and soils would apply equally under both scenarios, there is greater development potential under Alternative A and therefore greater risk, and the net benefits from the new General Plan policy to protect paleontological resources would not be realized through 2042 buildout. Therefore, Alternative A would result in *greater* impacts when compared to the proposed project.

5.4.2.8 GREENHOUSE GAS EMISSIONS

As described in Chapter 4.8, *Greenhouse Gas Emissions*, of this Draft EIR, the proposed project would result in significant and unavoidable impacts when applying program-level thresholds for the forecast year 2042 despite implementation of Mitigation Measure GHG-1.

The GHG emissions from new buildings constructed would be subject to the triennial updates to California's Building and Energy Efficiency Standards, which would presumably improve over time. While new buildings would be more energy efficient, there would be an overall increase in energy usage under the proposed project from construction due to the amount of proposed growth and energy use would be *greater* under Alternative A.

As described in the air quality discussion, the total VMT per service population would be *greater* under existing conditions than the proposed project because the proposed project includes a different mix of land uses and densities and more infill development, which would reduce VMT from automobiles. Alternative A would not include the goals, policies, and actions, or land use mix of the proposed project, which would concentrate development in existing urban areas and therefore could lessen the net benefit gained from siting future development near public transit and existing services. Therefore, Alternative A would not necessarily reduce trips for these reasons and would also increase trips from more development, which are the major source of GHG emissions. Therefore, GHG emissions from the operation of these uses would be considered *greater* when compared to the proposed project.

Additionally, as described in the energy discussion, the proposed project includes new and modified General Plan goals, policies, and actions in the Land Use Element and the Circulation Element which require additional actions that would further ensure energy efficiency in the EIR Study Area which would reduce VMT and GHG emissions. Under Alternative A, the net benefits from the new and modified goals, policies, and actions would not be realized through 2042 buildout. In addition, this alternative does not require implementation of Mitigation Measure GHG-1, which requires the City to prepare a Climate Action Plan to achieve the GHG reduction goals of SB 32 and chart a trajectory to achieve the long-term year 2050 GHG reduction goal set by Executive Order (EO) S-03-05 and substantial progress toward the State's carbon neutrality goals of EO B-55-18, and would ensure that the City is tracking and monitoring the City's GHG emissions.

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In summary, overall impacts from GHG emissions under Alternative A would be *greater* when compared to the proposed project because there is greater development potential under Alternative A, the net benefits of new and modified General Plan 2042 goals, policies, and actions that improve energy efficiency and reduce VMT would not be realized, and Mitigation Measure GHG-1 would not be required.

5.4.2.9 HAZARDS AND HAZARDOUS MATERIALS

As described in Chapter 4.9, *Hazards and Hazardous Materials*, of this Draft EIR, the proposed project would result in less-than-significant impacts related to hazards and hazardous materials and no mitigation measures are required.

As discussed in Chapter 4.9, there are sites within the EIR Study Area that are included on a list of hazardous materials sites. Impact discussion HAZ-4 of this Draft EIR concluded that implementation of the proposed project could result in construction and operation activities on sites with known hazardous materials and, as a result, create a significant hazard to the public or the environment. Additionally, both scenarios would routinely transport, use, or disposal of hazardous waste, the release of hazardous waste, or the emitting of hazardous emissions or handling of hazardous materials in the proximity of an existing or proposed school. As further discussed in Chapter 4.9, the EIR Study Area is within an airport land use plan area.

Potential future development that could occur in the EIR Study Area from implementation of the proposed project or Alternative A would be required to comply with all federal, state, and local regulations pertaining to hazards and hazardous materials, and General Plan 2042 goals, policies, and actions that would further reduce impacts related to hazardous materials. Development that would occur under Alternative A would be required to comply with the same federal and state regulations and would be required to comply with policies in the existing General Plan 2030, which reduce impacts related to hazardous materials. The regulatory setting, including the General Plan goals, policies, and actions would apply under both scenarios; therefore, impacts would be *similar* in this regard as the General Plan goals, policies, and actions were not substantially modified to further reduce such impacts.

Overall, because there is more development potential under Alternative A, the risk associated with hazards and hazardous materials is greater. Therefore, Alternative A would have a *greater* impact when compared to the proposed project.

5.4.2.10 HYDROLOGY AND WATER QUALITY

As described in Chapter 4.10, *Hydrology and Water Quality*, of this Draft EIR, the proposed project would not result in any significant impacts related to hydrology and water quality and no mitigation measures are required. Compliance with existing state and local regulations and procedures would ensure that pre- and post-construction impacts to water quality would be less than significant. These regulations and procedures would be maintained under Alternative A.

Alternative A would result in more development overall, future development would likely occur within previously urbanized areas and would connect to existing drainage systems already in place and be subject to the same existing federal, state, and local regulations relating to hydrology and water quality,

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similar to the proposed project. Compliance with existing regulations would ensure that pre- and post-construction impacts to water quality be minimized as future development occurs. However, the proposed project has updated and expanded the General Plan 2030 goals, policies, and actions related to hydrology and water quality to further minimize impacts. For example, new and modified General Plan 2042 policies and actions in the Park, Open Space, and Conservation (P) Element and Public Services and Facilities (PSF) Element would require the City to work with the San Joaquin River Exchange Contractors (SJREC) Groundwater Sustainability Plan (GSP) group to offset increases in water demand based on projected population growth by identifying, analyzing, and implementing projects jointly with the SJREC to maximize the regional benefits. The City will develop projects to offset overdraft, including (1) stormwater capture, (2) demand reduction through reduced watering, (3) surface water transfer, (4) purchasing groundwater credits, (5) participation in recharge projects. The City would seek funding from the Department of Water Resources' Sustainable Groundwater Planning Grant Program (SGWP) to fund projects that promote the sustainable use of groundwater. New policies would also require green infrastructure improvements in new private developments, where possible, incorporate green infrastructure improvements in public improvement projects by the City, and create an incentive program to promote improvement of existing residential, commercial, and industrial developments and structures with green infrastructure improvements. Lastly, the proposed General Plan 2042 incorporates the Merced County Multijurisdictional Hazard Mitigation Plan, approved by the Federal Emergency Management Agency (FEMA) in 2021, by reference into this Safety Element in accordance with Assembly Bill 2140.

Because Alternative A involves more development potential and would continue implementation of General Plan 2030 and would not implement the new and modified policies of the General Plan 2042 to further minimize impacts related to hydrology and water quality, Alternative A would have *greater* impacts to hydrology and water quality when compared to the proposed project.

5.4.2.11 LAND USE AND PLANNING

As described in Chapter 4.11, *Land Use and Planning*, of this Draft EIR, the proposed project would not result in any significant impacts related to land use and planning and no mitigation measures are required.

The existing General Plan 2030 was adopted with the purpose of harmonizing changes to existing developed areas to better serve community needs. While the proposed project would aim to improve connectivity and would not create physical barriers within existing communities, Alternative A would also support the integration of infill development and does not propose physical features that could divide a community. Accordingly, impacts would be *similar* under both scenarios.

Under Alternative A, development would continue to occur throughout the EIR Study Area under the existing General Plan 2030 and Zoning Code and would not conflict with these already approved standards. However, Alternative A would not implement new and modified General Plan 2042 goals, policies, and actions, and the updated land use mix to guide future development in a more sustainable and efficient manner. Nonetheless, implementation of either development scenarios would not conflict with any applicable land use plan adopted for the purpose of avoiding or mitigating an environmental effect and impacts would be *similar*.

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5.4.2.12 NOISE

As described in Chapter 4.12, *Noise*, of this Draft EIR, the proposed project would result in significant and unavoidable impacts with implementation of Mitigation Measures NOI-1a (construction) and NOI-1b (operational).

Future development allowed under the proposed project would be subject to the standards of the LBMC and existing General Plan 2030, including those relating to the interface between residential and nonresidential land uses. As specific uses are proposed for particular sites, project-level design, permitting, and/or environmental review would serve to ensure that individual uses would comply with the noise regulations. Future development under Alternative A would also be subject to these applicable standards. Because more construction would occur, noise and vibration from construction would be *greater* under Alternative A when compared to the proposed project.

The proposed General Plan 2042 also include new policies and an action in the Safety Element to further minimized the adverse effect from noise. For example, new policies require the City to establish and adopt a list of construction best management practices to be implemented during the construction phase and incorporated into LBMC Article 27, *Noise Control*, to protect noise sensitive receptors (e.g., residences, schools, and hospitals) from the temporary effects of construction noise. The City of Los Banos Building Department would be responsible for verifying that construction best management practices, as appropriate, are on the demolition, grading, and construction plans prior to issuance of demolition, grading and/or building permits. A new action would require the City to prohibit long-term noise increases above specific standard at existing sensitive receptor property lines (e.g., from traffic noise increases), or new uses that generate noise levels at a sensitive receptor property line. For projects that exceed these noise increases due to project-generated traffic noise, a “fair share” fund shall be considered where projects exceeding these increases pay into a fund for roadway improvements (e.g., repaving with “quiet pavement” to reduce traffic noise levels).

Alternative A would result in more development and as previously described in the air quality discussion, would generate greater trips from vehicles than with the proposed project, which potentially generate more mobile sources of noise. Because construction is temporary, the increased noise impacts from the operational phase would result in *greater* noise impacts under Alternative A when compared to the proposed project.

5.4.2.13 POPULATION AND HOUSING

As described in Chapter 4.13, *Population and Housing*, of this Draft EIR, the proposed project would not result in any significant impacts related to population and housing, and no mitigation measures are required.

As described in Chapter 4.13, implementation of the proposed project would exceed current regional projections. However, the proposed project would include a significant decrease in the projected growth of population, housing, and jobs under the current General Plan 2030 (Alternative A). Further, the proposed project is the overriding policy document in the EIR Study Area, which has been updated to plan for population growth that is reasonably foreseeable through 2042.

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Alternative A would result in more population and housing; thus, the regional projections would also be exceeded under this scenario. Additionally, Alternative A would not include the updated policy framework of the proposed project that ensure adequate planning occurs to accommodate the future population increase and future development to extended buildout year through 2042. Therefore, impacts under Alternative A would be *greater* when compared to those under the proposed project.

Although more than the proposed project, Alternative A would allow a net increase of residential and nonresidential uses in the EIR Study Area through 2042. Since implementation of Alternative A would result in a net increase in housing, like the proposed project, it would not require replacement housing outside the EIR Study Area. Therefore, impacts under Alternative A would be *similar* when compared to those of the proposed project.

In summary, while Alternative A would result in a different growth potential, impacts related to population and housing would be *greater* when compared to the proposed project as the current General Plan has not been updated to account for changes through 2042.

5.4.2.14 PUBLIC SERVICES AND RECREATION

As described in Chapter 4.14, *Public Services and Recreation*, of this Draft EIR, impacts under the proposed project to fire protection services, police services, parks, schools, and libraries were found to be less than significant. No mitigation measures are required.

Alternative A would result in more new residents and jobs to the EIR Study Area, and therefore, would result in more demand on the public service providers that serve the EIR Study Area. Potential future development under Alternative A would be required to comply with all existing City regulations adopted to ensure that development pays its fair share of the cost of delivering services, providing park space and libraries, while payment of property taxes would ensure that future development pays its fair share towards schools. Overall, due to the additional growth, when compared to the proposed project, impacts under Alternative A would be *greater* than those of the proposed project.

5.4.2.15 TRANSPORTATION

As described in Chapter 4.15, *Transportation*, of this Draft EIR, the proposed project would result in significant and unavoidable impacts related to transportation despite implementation of new General Plan policies that require the reduction of VMT. This significant and unavoidable impact is only related to the inability of the proposed project to achieve the VMT reduction by 2042 of 15 percent below the baseline (2021) regional average. While the proposed General Plan 2042 results in a reduction in VMT per service population by 2042 compared to existing conditions, the VMT threshold of 15 percent below the current regional average would not be met. A reduction of 12.2 percent in VMT per service population would be required.

The proposed project would focus potential future development in existing urban areas, some of which would occur specifically in the Downtown area. As such, the VMT generated by potential future development would be lower than if development were proposed in areas not served by public transportation and a network of sidewalks and bicycle facilities. The proposed project also includes goals,

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policies, and actions that expand upon General Plan 2030 and to ensure the transportation system in the EIR Study Area is multi-modal and designed to increase bicycle and pedestrian access and safety. For example, new policies require the City to plan, design, and maintain complete streets in Los Banos, which balance safe access to all users, including drivers, pedestrians, cyclists, and people of all ages and abilities, and which integrates all appropriate modes of transportation into an effectively functioning system. A new action requires the City to adopt updated street standards to reflect complete streets principles, focusing on bicycle and pedestrian safety and multi-modal uses. The proposed General Plan 2042 also includes new policies that require the City to achieve State-mandated reductions in VMT by requiring development and transportation projects to meet specific VMT metrics. In the event a proposed project does not meet these metrics, require measures to reduce the additional VMT associated with the project, consistent with the City's adopted thresholds. New policies also require the City to reduce VMT through measures such as improvements to public transportation and carpooling and offering safe routes for pedestrians and bicyclists, and also promote and encourage carpool, vanpool, and guaranteed ride home with employers to discourage single occupancy vehicles while encouraging alternative modes of transportation such as carpooling. A new action requires the City to participate in regional efforts to develop guidelines for calculating the projected VMT associated with future development projects and transportation improvements. The guidelines also should cover administration, screening criteria, and appropriate Transportation Demand Management measures and monitoring procedures. Lastly, the proposed General Plan 2042 requires the City to provide a safe and accessible multimodal circulation network for disadvantaged communities that improves health and reduces pollution exposure.

Impacts related to hazards from design features, emergency access, and conflicting with adopted plans or decrease performance standards, were found to be less than significant under the proposed project.

Alternative A would be implemented under the existing General Plan 2030, which does not include the new mix of land uses that increase density to reduce VMT. While the General Plan 2030 focuses on development in urbanized portions of the EIR Study Area, it does not concentrate development in the Downtown area in the same efficient way, and therefore VMT as a result of implementation of Alternative A would be *greater* than under the proposed project. Therefore, Alternative A would result *greater* VMT impacts when compared to the proposed project.

Impacts to bicycles and pedestrians would be *greater* under Alternative A when compared to the proposed project since the proposed project's improvements to bicycle and pedestrian facilities, would not be implemented.

Alternative A would not include the multi-modal circulation policies and actions that are included in the proposed project and more development would result in greater vehicle trips. Overall, transportation impacts in the EIR Study Area under Alternative A would be *greater* when compared to the proposed project.

5.4.2.16 UTILITIES AND SERVICE SYSTEMS

As described in Chapter 4.16, *Utilities and Service Systems*, of this Draft EIR, impacts to sanitary wastewater, solid waste and stormwater infrastructure, and solid waste, under the proposed project, were

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found to be less than significant with the compliance of all applicable regulations. No mitigation measures are required.

Demand and consumption trends generally demonstrate that advances in recycling and solid waste reduction requirements, water-efficient regulations in building and landscaping, and stricter stormwater retention requirements, would reduce impact from existing conditions. However, it is assumed that because Alternative A would result in more overall development than the proposed project, more overall water demand, and more wastewater and solid waste generation, impacts under Alternative A would be *greater* than those of the proposed project.

5.4.2.17 WILDFIRE

As described in Chapter 4.17, *Wildfire*, of this Draft EIR, the proposed project would not result in significant impacts related to wildfire and no mitigation measures are required.

Chapter 4.17, *Wildfire*, of this Draft EIR determined that, due to compliance with applicable local, regional, and State regulations, the proposed project would not impair the implementation of an emergency response or emergency evacuation plan. Additionally, potential future development as a result of the proposed project would not be located in an area that would expose persons to wildfire or wildfire pollutants, nor would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides. Finally, the proposed project would not result in the installation or maintenance of any infrastructure that could exacerbate fire risk or result in impacts to the environment.

Alternative A would continue implementation of the existing General Plan 2030, which focuses development in urbanized areas similar to the proposed project. The existing General Plan 2030 also does not include any infrastructure-related projects and would not conflict with an emergency response or emergency evacuation plan. However, as with the conclusion in the hazards and hazardous materials discussion, because there is more development potential under Alternative A, the risk associated with wildfire is greater. Therefore, implementation of Alternative A would have *similar* impacts when compared to the proposed project.

5.4.3 RELATIONSHIP OF THE ALTERNATIVES TO THE OBJECTIVES

Under Alternative A, the proposed project would not be implemented and therefore, this alternative would not accomplish any of the project objectives.

5.5 ALTERNATIVE B: FOCUSED GROWTH

5.5.1 DESCRIPTION

As previously described, the purpose of this alternative is to reduce the significant and unavoidable impacts associated with agricultural resources (AG), air quality (AIR), greenhouse gas (GHG) emissions, noise (NOI), and transportation (TRAN).

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As described in Chapter 4.2, *Agricultural Resources*, the conversion of lands designated Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, and lands under Williamson Act contracts to non-agricultural uses is a significant impact under CEQA. Accordingly, to reduce the potential for the conversion of agricultural lands, Alternative B would not propose to change the SOI as described in Chapter 3, *Project Description*, but instead would maintain the current Los Banos SOI that was approved and adopted by Merced County LAFCO in 2004. The 2004 SOI is within the current UGB to the north, extends beyond the current UGB and beyond and partially along the Arroyo Canal to the east, extends below Pioneer Road to the south, and is within the current UGB to the west. The 2004 SOI is roughly 11,200 acres or 18 square miles. When compared to the proposed SOI (14,500 acres and 23 square miles), Alternative B would reduce the SOI where most farmland is located, by roughly 3,300 acres or 5 square miles.

As described in Chapter 4.3, *Air Quality*, Chapter 4.8, *Greenhouse Gas Emissions*, and Chapter 4.15, *Transportation*, there is a direct relationship to reducing air pollutants, including GHG emissions and VMT. Accordingly, this alternative maintains the same amount of households, residential units, population, and jobs as under the proposed project, but would change the mix of uses in some General Plan land use designations to allow residential and commercial uses in close proximity to increase walking, bicycling, and transit opportunities, and reduce VMT. Alternative B would modify the allowed uses in the Office/Professional and Employment Campus land use designations to allow multifamily residential units to promote and increase walking, bicycling, and transit opportunities. In addition, Alternative B would also increase the maximum FAR in the Neighborhood Commercial, Regional Commercial, Office/Professional, and Employment Campus from 0.60 to 0.75 to allow for more intense infill development potential and potentially reduce development on undeveloped land in the SOI. By allowing increased intensities of commercial and office development, and allowing multifamily homes on a wider range of commercial parcels, Alternative B would accommodate the same amount of proposed development as General Plan 2042, but in a smaller footprint.

The alternatives analysis assumes that all applicable mitigation measures recommended for the proposed project and the proposed General Plan 2042 goals, policies, and actions would apply to Alternative B.

5.5.2 IMPACT DISCUSSION

The potential environmental impacts associated with Alternative B when compared to the proposed project are described herein.

5.5.2.1 AESTHETICS

As described in Chapter 4.1, *Aesthetics*, of this Draft EIR, the proposed project would not result in any significant impacts related to aesthetics and no mitigation measures are required.

Alternative B does not propose any changes that would result in substantial differences from the proposed growth potential of the proposed project. Potential future development would still be anticipated to occur in the form of infill/intensification on sites either already developed and/or underutilized, and/or in close proximity to existing development, where future development would have a lesser impact on scenic vistas. Under Alternative B, the maximum FAR in the Neighborhood Commercial,

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Regional Commercial, Office/Professional, and Employment Campus would increase from 0.60 to 0.75, which could result in taller buildings and/or greater lot coverage. However, as discussed in Chapter 4.1, there are no officially designated scenic view corridors or vistas within the EIR Study Area. Therefore, overall impacts to scenic vistas would be the *same* under both scenarios.

Alternative B would benefit from the updated and expanded goals, policies, and actions, as well as the proposed Annexation Ordinance. Alternative B would be required to comply with best management practices and LBMC provisions that ensure new land uses do not generate excessive light levels and reduce light and glare spillover from future development to surrounding land uses. Therefore, impacts from light and glare under Alternative B would be *similar* when compared to the proposed project.

Overall, the same level of development with increased development potential for a mix of uses in the Neighborhood Commercial, Regional Commercial, Office/Professional, and Employment Campus General Plan land use designations would be guided by the same regulations as the proposed project and would occur in the same development pattern, and would result in *similar* aesthetics impacts when compared to the proposed project.

5.5.2.2 AGRICULTURAL RESOURCES

As determined in Chapter 4.2, *Agricultural Resources*, the proposed project would result in significant and unavoidable impacts to agricultural resources.

Alternative B allows for more mixed-use development in the Office/Professional and Employment Campus land use designations and more intense development in the Neighborhood Commercial, Regional Commercial, Office/Professional, and Employment Campus land use designations to allow for more intense infill development potential and potentially reduce development on undeveloped land in the SOI. In addition, Alternative B would reduce the limits of the SOI by roughly 3,300 acres or 5 square miles. Both of these changes have the potential to reduce the amount of the lands designated Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, and lands under Williamson Act contracts to be converted to non-agricultural uses. While the loss of any of these lands through the conversion to non-agricultural uses would result in a significant impact, because less qualifying agricultural lands could be converted, *fewer* overall impacts would occur under Alternative B when compared to the proposed project.

5.5.2.3 AIR QUALITY

As described in Chapter 4.3, *Air Quality*, of this Draft EIR, the proposed project would result in significant and unavoidable impacts during the operational phase even with implementation of Mitigation Measures AIR-2a and AIR-3a. Implementation of Mitigation Measure AIR-4 would ensure operation impacts related to odors would be less than significant. Implementation of Mitigation Measures AIR-2b and AIR-3b would reduce significant impacts from construction, but impacts at the program level would remain significant and unavoidable.

As described in Chapter 4.3, *Air Quality*, of this Draft EIR, implementation of the proposed project would conflict with the SJVAPCD clean air plans (see Section 4.3.1.3, *Regulatory Setting*, in Chapter 4.3, for the

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complete list of clean air plans), would pose an operational community risk or hazard, and would not generate any substantial odors. Additionally, at a program level, implementation of the proposed project would result in significant and unavoidable impacts related to construction and operation of potential future development, as well as the cumulative contribution to the non-attainment designations of the SJVAB.

Alternative B would continue development as allowed under the proposed project but with increased infill opportunities and smaller expansion of the SOI, which could result in more redevelopment in the EIR Study Area. Development under both scenarios would be subject to the SJVAPCD Indirect Source Review Rule 9510 and would be required to prepare a detailed air quality impact assessment on a project-by-project basis. Additionally, future development under both scenarios could result in construction activities in close proximity to residential and other sensitive land uses, thus, temporarily elevating concentrations of toxic air contaminants and diesel-PM_{2.5} in the vicinity of sensitive land uses. Because the regulatory setting mitigating construction impacts is the same under both scenarios and the same development potential would occur under Alternative B, construction impacts would be the *same* when compared to the proposed project.

Due to the magnitude and intensity of development accommodated by the proposed General Plan 2042, as well as regional air quality influences beyond the control of Los Banos, impacts associated with consistency with the San Joaquin Valley Unified Air Pollution Control District (SJVAPCD) would remain significant and unavoidable at the program level. Under Alternative B, the same development would occur; therefore, the same direct and indirect criteria air pollutant emissions from energy (e.g., natural gas use), and area sources (e.g., aerosols and landscaping equipment) would occur. Under both scenarios, subsequent environmental review of applicable development projects would be required to assess potential impacts under SJVAPCD project-level thresholds. As demonstrated in Chapter 4.15, *Transportation*, and previously summarized in this chapter, the total VMT per service population would be *greater* under existing conditions than the proposed project because the proposed project includes a different mix of land uses and densities and more infill development, which would reduce VMT from automobiles. Additionally, the development under Alternative B would include the goals, policies, and actions. When combined with increased opportunities for infill development and reduced opportunities for development in the larger proposed SOI, Alternative B would realize a greater net benefit from siting future development near public transit and existing services. Therefore, Alternative B would be more likely to reduce driving trips when compared to the proposed project, which are the major source of criteria air pollutants from the proposed project. Air quality impacts from Alternative B would be considered *less* when compared to the proposed project.

Like the proposed project, Alternative B is not the type of project that would result in significant impacts from odor and impacts would be *similar* under both scenarios.

Overall, because Alternative B would result in more infill development and would be expected to decrease the number and length of driving trips, air quality impacts under Alternative B there would be *fewer impacts* when compared to the proposed project.

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5.5.2.4 BIOLOGICAL RESOURCES

As described in Chapter 4.4, *Biological Resources*, of this Draft EIR, the proposed project would result in less-than-significant impacts to biological resources.

Alternative B would result in the same level of growth as the proposed project but would be more compact and would potentially disturb less undeveloped land with the smaller SOI when compared to the proposed project. Under Alternative B, the same General Plan 2042 goals, policies, and actions would apply. Therefore, while development would be more intensive in some land use designations under Alternative B, development would be concentrated in the same urban areas, potential future development under Alternative B would result in *fewer* impacts when compared to the proposed project.

5.5.2.5 CULTURAL AND TRIBAL CULTURAL RESOURCES

As described in Chapter 4.5, *Cultural and Tribal Cultural Resources*, of this Draft EIR, the proposed project would result in less-than-significant impacts to cultural and tribal cultural resources and no mitigation measures are required.

Under Alternative B, new development would continue throughout the city under existing plans and regulations, and would be guided by the proposed new and modified General Plan 2042 goals, policies, and actions to further protect historic buildings. As explained in Chapter 4.5, there are existing prehistoric, architectural, historical, or archaeological resources in the EIR Study Area that could all be impacted by new demolition, inappropriate modification, or inappropriate new construction under the proposed project or Alternative B. Like the proposed project, Alternative B would be subject to the procedures of conduct following the discovery of human remains set forth in California Health and Safety Code, Public Resources Code and the California Code of Regulations. Alternative B would also include all policies and actions that the proposed project includes to further ensure the protection of historic resources. However, because the same development would occur under the Alternative B scenario, but in more compact lay out that could reduce the potential to disturb unknown archaeological resources, the potential to impact these resources would be *less* when compared to the proposed project. Overall, Alternative B would have *fewer* impacts to cultural resources when compared to the proposed project.

5.5.2.6 ENERGY

As described in Chapter 4.6, *Energy*, of this Draft EIR, the proposed project would not result in any significant impacts related to energy and no mitigation measures are required.

All development that occurs in the State is required to comply with best management practices regulated in the California Green Building Code and Building and Energy Efficiency Standards, which ensure new development would not result in the wasteful or inefficient use of energy. Additionally, neither the proposed project nor Alternative B would introduce a level of development and population growth that would be anticipated to necessitate the construction of new energy supply facilities or transmission infrastructure.

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Additionally, Alternative B, like the proposed project, includes new and modified General Plan goals, policies, and actions in the Land Use Element and the Circulation Element which require additional actions that would further ensure energy efficiency in the EIR Study Area. These include requiring the City to establish zoning, review procedures, and fees that encourage rehabilitation, renovation, preservation, and reuse of Downtown buildings, reduce VMT through measures such as improvements to public transportation and carpooling and offering safe routes for pedestrians and bicyclists, promote and encourage carpool, vanpool, and guaranteed ride home with employers to discourage single occupancy vehicles while encouraging alternative modes of transportation such as carpooling, and participate in regional efforts to develop guidelines for calculating the projected VMT associated with future development projects and transportation improvements. Because transportation is a leading source of energy use in Los Banos, these new and modified goals, policies, and actions promote energy conservation from the transportation sector by increasing safe and sufficient transit, bicycle, and pedestrian facilities to reduce automobile use and VMT.

The same amount of development would occur under the Alternative B scenario, so energy consumption from construction would be the *same* when compared to the proposed project. Additionally, newer buildings would be more energy efficient, thus energy impacts from new buildings would be more energy efficient under both scenarios. Ultimately, as described in the air quality discussion, energy use from VMT would be the less under Alternative B because the same level of development potential would occur when compared to the proposed project, but in a more compact and infill manner by intensifying development and allowing a better mix of housing and jobs in the Neighborhood Commercial, Regional Commercial, Office/Professional, and Employment Campus land use designations. Furthermore, under Alternative B, the net benefits from the new and modified goals, policies, and actions would be realized through 2042 buildout. Therefore, while energy efficiency would be improved with more intensive infill development, the overall energy demand and consumption would be *similar* when compared to the proposed project.

5.5.2.7 GEOLOGY AND SOILS

As described in Chapter 4.7, *Geology and Soils*, of this Draft EIR, the proposed project would result in less-than-significant impacts related to geology and soils and no mitigation measures are required.

Future development under both Alternative B and the proposed project would occur in the same urban areas and would be subject to the same federal, state, and local regulations that address and prevent hazards associated with geology, soils, and seismicity. Although Alternative B would result in the same overall development, compliance with existing regulations related to geologic and seismic safety would apply similarly to both future development under Alternative B and the proposed project. In addition, Alternative B would include the new policy in the Parks, Open Space, and Conservation Element that ensures greater protection of paleontological resources by requiring the City to prohibit the damage or destruction of paleontological resources, including prehistorically significant fossils, ruins, monuments, or objects of antiquity, that could potentially be caused by future development.

While, as described above, State and local regulations to reduce hazards related to geology and soils would apply equally under both scenarios, the same development potential under Alternative B with greater potential for infill development and the net benefits from the new General Plan policy to protect

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paleontological resources would be realized through 2042 buildout, impacts would be *similar* when compared to the proposed project.

5.5.2.8 GREENHOUSE GAS EMISSIONS

As described in Chapter 4.8, *Greenhouse Gas Emissions*, of this Draft EIR, the proposed project would result in significant and unavoidable impacts when applying program-level thresholds for the forecast year 2042 despite implementation of Mitigation Measure GHG-1.

The GHG emissions from new buildings constructed would be subject to the triennial updates to California's Building and Energy Efficiency Standards, which would presumably improve over time. While new buildings would be more energy efficient, there would be an overall increase in energy usage under the proposed project from construction due to the amount of proposed growth. While the proposed development potential is the same under both scenarios, energy from construction would be *similar* under Alternative B when compared to the proposed project, but would be *less* from operation due to more opportunities for infill development in the Neighborhood Commercial, Regional Commercial, Office/Professional, and Employment Campus land use designations.

As described in the air quality discussion, the total VMT per service population would be *greater* under existing conditions than the proposed project because the proposed project includes a different mix of land uses and densities and more infill development, which would reduce VMT from automobiles. Alternative B would include the goals, policies, and actions, and the same land use mix of the proposed project, which would concentrate development in existing urban areas and therefore could lessen the net benefit gained from siting future development near public transit and existing services. However, Alternative B would allow for more infill development opportunities with a mix of commercial and residential than the proposed project. Therefore, Alternative B would reduce trips for these reasons, which are the major source of GHG emissions. Therefore, GHG emissions from the operation of these uses would be considered *less* when compared to the proposed project.

Additionally, as described in the energy discussion, the proposed project includes new and modified General Plan goals, policies, and actions in the Land Use Element and the Circulation Element which require additional actions that would further ensure energy efficiency in the EIR Study Area which would reduce VMT and GHG emissions. Under Alternative B, the net benefits from the new and modified goals, policies, and actions would be realized through 2042 buildout, same as the proposed project. In addition, this alternative requires implementation of Mitigation Measure GHG-1, which requires the City to prepare a Climate Action Plan to achieve the GHG reduction goals of SB 32 and chart a trajectory to achieve the long-term year 2050 GHG reduction goal set by EO S-03-05 and substantial progress toward the State's carbon neutrality goals of EO B-55-18, and would ensure that the City is tracking and monitoring the City's GHG emissions.

In summary, overall impacts from GHG emissions under Alternative B would be *fewer* when compared to the proposed project because there is greater infill development opportunities under Alternative B, the net benefits of new and modified General Plan 2042 goals, policies, and actions that improve energy efficiency and reduce VMT would be realized, and Mitigation Measure GHG-1 would be required.

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5.5.2.9 HAZARDS AND HAZARDOUS MATERIALS

As described in Chapter 4.9, *Hazards and Hazardous Materials*, of this Draft EIR, the proposed project would result in less-than-significant impacts related to hazards and hazardous materials and no mitigation measures are required.

As discussed in Chapter 4.9, there are sites within the EIR Study Area that are included on a list of hazardous materials sites. Impact discussion HAZ-4 of this Draft EIR concluded that implementation of the proposed project could result in construction and operation activities on sites with known hazardous materials and, as a result, create a significant hazard to the public or the environment. Additionally, both scenarios would routinely transport, use, or disposal of hazardous waste, the release of hazardous waste, or the emitting of hazardous emissions or handling of hazardous materials in the proximity of an existing or proposed school. As further discussed in Chapter 4.9, the EIR Study Area is within an airport land use plan area.

Potential future development that could occur in the EIR Study Area from implementation of the proposed project or Alternative B would be required to comply with all federal, state, and local regulations pertaining to hazards and hazardous materials, and General Plan goals, policies, and actions that would further reduce impacts related to hazardous materials. The regulatory setting, including the General Plan 2042 goals, policies, and actions would apply under both scenarios; therefore, impacts would be *similar* in this regard.

Overall, because there is the same amount of development potential under Alternative B although it has more opportunities for infill development with a mix of land uses, the risk associated with hazards and hazardous materials is the *same*. Therefore, Alternative B would have the *same* impact when compared to the proposed project.

5.5.2.10 HYDROLOGY AND WATER QUALITY

As described in Chapter 4.10, *Hydrology and Water Quality*, of this Draft EIR, the proposed project would not result in any significant impacts related to hydrology and water quality and no mitigation measures are required. Compliance with existing State and local regulations and procedures would ensure that pre- and post-construction impacts to water quality would be less than significant. These regulations and procedures would be maintained under Alternative B.

Alternative B would result in the same amount of development overall, future development would likely occur within previously urbanized areas and would connect to existing drainage systems already in place and be subject to the same existing federal, state, and local regulations relating to hydrology and water quality, similar to the proposed project. Compliance with existing regulations would ensure that pre- and post-construction impacts to water quality be minimized as future development occurs. Additionally, future development under Alternative B would be subject to the updated and expanded the General Plan 2030 goals, policies, and actions related to hydrology and water quality to further minimize impacts.

Because Alternative B involves a more compact and efficient manner, it would leave more of the land surrounding Los Banos in agricultural use. Current groundwater pumping rates from private wells serving

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agricultural users within the EIR Study Area but outside of city limits are approximately 4,766 acre-feet per year (AFY). Under Alternative B, this private pumping would continue, while the same amount of groundwater would be pumped to serve urban development within Los Banos city limits as under the proposed project. Therefore, net groundwater use would be greater than under the proposed project, and Alternative B would have **greater** impacts to hydrology and water quality when compared to the proposed project.

5.5.2.11 LAND USE AND PLANNING

As described in Chapter 4.11, *Land Use and Planning*, of this Draft EIR, the proposed project would not result in any significant impacts related to land use and planning and no mitigation measures are required.

Like the proposed project, Alternative B would aim to improve connectivity and would not create physical barriers within existing communities. Implementation of Alternative B would result in a greater intensity of development, the integration of such development would be *similar* to that of the proposed project and does not propose physical features that could divide a community. Accordingly, impacts would be *similar* under both scenarios.

Under Alternative B, development would occur throughout the EIR Study Area under the proposed General Plan 2042. Such development, but with greater infill opportunities, would be the same as under the proposed project and therefore implementation of either development scenario would not conflict with any applicable land use plan adopted for the purpose of avoiding or mitigating an environmental effect and impacts would be *similar* when compared to the proposed project.

5.5.2.12 NOISE

As described in Chapter 4.12, *Noise*, of this Draft EIR, the proposed project would result in a significant-and-unavoidable impacts with implementation of Mitigation Measures NOI-1a (construction) and NOI-1b (operational).

Future development allowed under the proposed project would be subject to the standards of the LBMC as well as goals, policies, and actions proposed in General Plan 2042, including those relating to the interface between residential and nonresidential land uses. As specific uses are proposed for particular sites, project-level design, permitting, and/or environmental review would serve to ensure that individual uses would comply with the noise regulations. Future development under Alternative B would also be subject to these applicable standards. Impacts would be *similar* under both scenarios in this regard.

Alternative B would result in more intense development opportunities, but would not increase overall development potential, which would result in the same construction but *less* VMT. Because construction is temporary, the reduced VMT from Alternative B would result in *less* noise from the operational phase and **fewer** noise impacts under Alternative B when compared to the proposed project.

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5.5.2.13 POPULATION AND HOUSING

As described in Chapter 4.13, *Population and Housing*, of this Draft EIR, the proposed project would not result in any significant impacts related to population and housing, and no mitigation measures are required.

As described in Chapter 4.13, *Population and Housing*, of this Draft EIR, implementation of the proposed project would exceed current regional projections. However, implementation of the proposed project was found to have a less-than-significant impact due to the focus on infill development, which is in alignment with the regional planning framework of the MCAG 2018 RTP/SCS. Further, the proposed project is the overriding policy document in the EIR Study Area which plans for population growth that is reasonably foreseeable through 2042.

Alternative B would result in the same population and housing, and jobs as the proposed project; thus, the regional projections would be the same as the proposed project. Alternative B would include the updated policy framework of the proposed project, which ensures adequate planning occurs to accommodate the future population increase and future development. Therefore, impacts under Alternative B would be *similar* to those under the proposed project.

Alternative B would allow for same level of residential and nonresidential development in the EIR Study Area through 2042. Alternative B would result in the same level of housing as the proposed project and as such, would not require replacement housing outside the EIR Study Area. Therefore, impacts under Alternative B would be *similar* to those of the proposed project.

In summary, while Alternative B would result in a different mix of development potential, impacts related to population and housing would be *similar* when compared to the proposed project.

5.5.2.14 PUBLIC SERVICES AND RECREATION

As described in Chapter 4.14, *Public Services and Recreation*, of this Draft EIR, impacts under the proposed project to fire protection services, police services, parks, schools, and libraries were found to be less than significant. No mitigation measures are required.

Alternative B would result in the same new residents and jobs in the EIR Study Area as the proposed project, and therefore, would result in the *same* demand on the public service providers that serve the EIR Study Area. Potential future development under Alternative B would be required to comply with all existing City regulations adopted to ensure that development pays its fair share of the cost of delivering services, providing park space and libraries, while payment of property taxes would ensure that future development pays its fair share towards schools. Overall, due to the same level of growth, when compared to the proposed project, impacts under Alternative B would be the *same* than those of the proposed project.

ALTERNATIVES TO THE PROPOSED PROJECT

5.5.2.15 TRANSPORTATION

As described in Chapter 4.15, *Transportation*, of this Draft EIR, the proposed project would result in significant and unavoidable impacts related to transportation despite implementation of new General Plan policies that require the reduction of VMT. This significant and unavoidable impact is only related to the inability of the proposed project to achieve the VMT reduction by 2042 of 15 percent below the baseline (2021) regional average. While the proposed General Plan 2042 results in a reduction in VMT per service population by 2042 compared to existing conditions, the VMT threshold of 15 percent below the current regional average would not be met. A reduction of 12.2 percent in VMT per service population would be required.

The proposed project would focus potential future development in existing urban areas, some of which would occur specifically in the Downtown area. As such, the VMT generated by potential future development would be lower than if development were proposed in areas not served by public transportation and a network of sidewalks and bicycle facilities. The proposed project also includes goals, policies, and actions that expand upon General Plan 2030 and to ensure the transportation system in the EIR Study Area is multi-modal and designed to increase bicycle and pedestrian access and safety as previously described in Section 5.4.2.15, *Transportation*. Alternative B would realize the new and expanded General Plan 2042 goals, policies, and actions.

Impacts related to hazards from design features, emergency access, and conflicting with adopted plans or decrease performance standards, were found to be less than significant under the proposed project.

Alternative B would include the new mix of land uses that increase density to reduce VMT, and would further expand on this land use mix by allowing multifamily housing in the Office/Professional and Employment Campus land use designations to promote and increase walking, bicycling, and transit opportunities. In addition, Alternative B would also increase the maximum floor-area ratios (FAR)² in the Neighborhood Commercial, Regional Commercial, Office/Professional, and Employment Campus from 0.60 to 0.75 to allow for more intense infill development potential. As a result of implementation of Alternative B result *fewer* VMT impacts when compared to the proposed project.

Impacts to bicycles and pedestrians would be the *same* under Alternative B when compared to the proposed project since the proposed project's improvements to bicycle and pedestrian facilities, would also be implemented.

Alternative B would include the multi-modal circulation policies and actions that are included in the proposed project and the same level of development, but with more compact infill, would be likely to result in *fewer* and shorter vehicle trips. Overall, transportation impacts in the EIR Study Area under Alternative B would be *fewer* when compared to the proposed project.

² FAR is a ratio of the building square footage permitted on a lot to the net square footage of the lot. For example, on a site with 10,000 square feet of net land area, a FAR of 1.0 will allow 10,000 square feet of building floor area to be built.

ALTERNATIVES TO THE PROPOSED PROJECT

5.5.2.16 UTILITIES AND SERVICE SYSTEMS

As described in Chapter 4.16, *Utilities and Service Systems*, of this Draft EIR, impacts to water supply, sanitary wastewater, stormwater infrastructure, and solid waste under the proposed project were found to be less than significant with the compliance of all applicable regulations. No mitigation measures are required.

Since Alternative B would result in the same level of development potential, and thus, the same water demand, wastewater and solid waste generation, impacts under Alternative B within the urbanized footprint of Los Banos would be the same when compared to the proposed project. However, a greater proportion of the area surrounding Los Banos would remain in agricultural use, drawing groundwater from private wells. Under the proposed project, the land on which private wells are located would be converted to non-agricultural use and become connected to the City's water distribution system, resulting in a reduction in groundwater pumping within the EIR Study Area of 686 AFY. Under Alternative B, this conversion and reduction in groundwater pumping would not occur. Therefore, Alternative B would demand greater water supply, and it is uncertain whether Alternative B would have sufficient water supplies available to serve reasonably foreseeable future development during normal, dry, and multiple dry years. While impacts to sanitary wastewater, stormwater, and solid waste would likely be similar under Alternative B, impacts to water supplies would be *greater* when compared to the proposed project.

5.5.2.17 WILDFIRE

Chapter 4.17, *Wildfire*, of this Draft EIR determined that, due to compliance with applicable local, regional, and state regulations, the proposed project would not impair the implementation of an emergency response or emergency evacuation plan. Additionally, potential future development as a result of the proposed project would not be in an area that would expose persons to wildfire or wildfire pollutants, nor would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides. Finally, the proposed project would not result in the installation or maintenance of any infrastructure that could exacerbate fire risk or result in impacts to the environment.

Alternative B would result in higher-density development that would be in the same locations as in the proposed project; would adopt the same goals, policies, and actions to reduce the risk of wildfire; and would reduce development potential outside of the city limit. Therefore, implementation of Alternative B would have *fewer* impacts when compared to the proposed project.

5.5.3 RELATIONSHIP OF THE ALTERNATIVES TO THE OBJECTIVES

As listed in Section 5.2, *Project Objectives*, the primary purposes of the proposed project are to plan for the growth and conservation of Los Banos over a 20-year time horizon and to achieve a more equitable, sustainable, and prosperous future for all residents. This requires extending the buildout horizon to year 2042 and updating goals, policies, and actions so that they meet current State requirements and community priorities. The objectives also include how to enhance Downtown as a vibrant center, build a diversified job base, provide sites for housing and mixed-use development, improve environmental justice and community health, and prepare for adaptation and resilience to a changing climate. As listed above, the City has identified seven key initiatives, which build upon the framework of the vision and goals of the

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existing General Plan and reflect the community's desires for the future of Los Banos. Because Alternative B would increase opportunities for infill development to support the reduction of VMT and GHG emissions, and also reduce the amount of qualifying agricultural lands that could be converted to non-agricultural uses, Alternative B would meet all of the project objectives.

5.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

In addition to the discussion and comparison of impacts of the proposed project and the alternatives, Section 15126.6 of the CEQA Guidelines requires that an "environmentally superior" alternative be selected and the reasons for such a selection be disclosed. In general, the environmentally superior alternative is the alternative to the proposed project that would be expected to generate the least number of significant impacts. Identification of the environmentally superior alternative is an informational procedure and the alternative to the proposed project selected may not be the alternative to the proposed project that best meets the goals or needs of Los Banos. Because CEQA Guidelines Section 15126.6(c) requires an evaluation of a reasonable range of alternatives to the proposed project, the proposed project under consideration cannot be identified as the environmentally superior alternative. Additionally, in accordance with CEQA Guidelines Section 15126.6(e)(2), if the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

As shown in Table 5-2, *Comparison of Impacts of the Project Alternatives and the Proposed Project*, Alternative B would, in comparison to the proposed project, result in reduced environmental impacts related to agricultural resources, air quality, biological resources, cultural and tribal cultural resources, GHG emissions, noise, transportation, and wildfire, but would have increased impacts related to hydrology and water quality and utilities and service systems (water supply). Therefore, as shown in Table 5-2, Alternative B would be the environmentally superior alternative.

6. CEQA-Required Conclusions

This chapter provides an overview of the impacts of the proposed project based on the analyses presented in Chapter 4, *Environmental Analysis*, and its subchapters 4.1 through 4.17, of this Draft Environmental Impact Report (EIR). The topics covered in this chapter include impacts found not to be significant, growth-inducing impacts, and significant irreversible changes to the environment. For a more detailed analysis of the proposed project's environmental effects and the proposed mitigation measures to minimize significant impacts, see Chapter 4, *Environmental Analysis*, and its subchapters 4.1 through 4.17, of this Draft EIR.

6.1 IMPACTS FOUND NOT TO BE SIGNIFICANT

California Environmental Quality Act (CEQA) Guidelines Section 15128, Effects Not Found to Be Significant, allows environmental issues to be “scoped out” if there is no likelihood of a significant impact, and they do not need to be analyzed further in the EIR. This section explains the reasoning for the determination that the proposed project would have no effect within an entire environmental topic or under specific criteria within an environmental topic. As shown below, there would be no impacts to mineral resources as a whole pursuant to the CEQA standards; therefore, this topic is not evaluated in Chapter 4, *Environmental Analysis*, of this Draft EIR. Furthermore, there would be no impacts to some of the criteria for aesthetics, forestry resources, and biological resources. Additionally, impacts related to wildfire are discussed although the Los Banos and the EIR Study Area do not meet the CEQA criteria warranting analysis in the EIR. These specific criteria are identified in the corresponding subsection of this chapter and are not required to be evaluated in this EIR.

6.1.1 AESTHETICS

Impacts to aesthetics are evaluated in Chapter 4.1. The following standard of significance is not evaluated in this EIR:

- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.

This standard has been screened out from further evaluation because the EIR Study Area is not on or within the viewshed of a State scenic highway. The nearest State-designated scenic highway is approximately 4 miles to the west of the city limit.¹ Therefore, no impact would occur regarding

¹ California Department of Transportation, 2022, California Scenic Highway Mapping System, <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>, accessed on January 30, 2022.

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substantial damage to scenic resources within a State scenic highway, and this issue is not discussed further in this EIR.

6.1.2 FORESTRY RESOURCES

The following standards of significance are not evaluated in this EIR:

- Conflict with existing zoning for, or cause rezoning of, forestland (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)).
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use.

This EIR does not analyze impacts to forestry resources because the Los Banos Municipal Code (LBMC) does not contain a zoning district for forest land or timberland production. Further, there are no State or national forest lands in the EIR Study Area. Consequently, there would be no impacts to forestry resources, and this topic is not discussed further in this EIR.

6.1.3 BIOLOGICAL RESOURCES

Impacts to biological resources are evaluated in Chapter 4.4. The following standard of significance is not evaluated in this EIR:

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

Because the EIR Study Area is outside of the area covered by the *Merced County Natural Community Conservation Plan*, the proposed project would not conflict with the provisions of an adopted habitat conservation plan or other approved conservation plan. Accordingly, this issue is not discussed further in this EIR.

6.1.4 MINERAL RESOURCES

The following standards of significances are not evaluated in this EIR:

- Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state.
- 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.

According to the California Department of Conservation, State Mining Geology Board, there are no known significant mineral resources within the EIR Study Area.² The EIR Study Area contains parts of San Luis

² Department of Conservation: State Mining and Geology Board, Mineral Land Classification of Merced County, 1999.

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Ranch alluvium and Modesto alluvium, known mineral occurrences of undetermined mineral resource significance. According to the California Division of Mine Reclamation, sand and gravel is currently mined within portions of the Los Banos Creek Fan, located southwest of the EIR Study Area.³ Although further exploration within the EIR Study Area could result in the reclassification of specific localities, no mineral resources have been historically exploited or are being currently exploited commercially within the EIR Study Area. As such, these standards have been screened out from further evaluation. Consequently, there would be no impacts to mineral resources as a result of adoption and implementation of the proposed General Plan 2042.

6.1.5 WILDFIRE

The following standards of significances are not evaluated in this EIR:

- If located in or near State Responsibility Areas (SRA) or lands classified as very high fire hazard severity zone (FHSZ), the proposed project would result in a significant wildfire impact if it would:
 - Substantially impair an adopted emergency response plan or emergency evacuation plan.
 - 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.
 - 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.
 - 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.
 - In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to wildfire.

A discussion of wildfire risks and the many resources available to address wildland fires should they arise are provided in Chapter 4.17. Because the EIR Study Area is not within or adjacent to any SRAs or lands classified by the California Department of Forestry and Fire Protection as a very high FHS),⁴ the wildfire standards of significance pursuant to CEQA listed above do not specifically apply to the proposed project. While these standards are not addressed in this EIR, Chapter 4.17 describes the General Plan 2042 goals and policies, the State, regional, and local regulations required to reduce the risk of wildfire impacts, and the many resources available to address wildland fires should they arise, to ensure that wildfire-related impacts would be minimized.

³ Assembly Bill 3098 Listing, as of October 16, 2006.

⁴ California Department of Forestry and Fire Protection, Fire Hazard Severity Zone Viewer, <https://egis.fire.ca.gov/FHSZ/>, accessed on January 19, 2022.

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6.1 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Section 15126.2(b) of the California Environmental Quality Act (CEQA) Guidelines requires that “direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short- and long-term effects.” Chapter 2, *Executive Summary*, contains Table 2-1, *Summary of Impacts, Mitigation Measures, and Applicable General Plan Policies*, which summarizes the significant impacts, mitigation measures, the applicable General Plan 2042 policies that minimize impacts, and levels of significance with and without mitigation. While actions from the proposed project and mitigation measures, where feasible, would reduce the level of impact to less than significant, the following impacts would remain significant and unavoidable after mitigation measures are applied. As detailed in Chapter 4.2, *Agricultural Resources*, Chapter 4.3, *Air Quality*, Chapter 4.8, *Greenhouse Gas Emissions*, and Chapter 4.15, *Transportation*, of this Draft EIR, environmental impacts associated with the proposed project were found to be significant and unavoidable, as listed:

- **Impact AG-1:** Implementation of the General Plan 2042 would result in the conversion of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland land to non-agricultural land uses.
- **Impact AG-2:** Implementation of the General Plan 2042 would result in the loss of agricultural land under the Williamson Act.
- **Impact AG-4:** The General Plan 2042, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to the conversion of farmland of concern under CEQA and Williamson Act properties to non-agricultural uses.
- **Impact AIR-1:** Implementation of the General Plan 2042 would result in the generation of substantial operational (long-term) criteria air pollutant emissions that would exceed the San Joaquin Valley Unified Air Pollution Control District regional significance thresholds and would therefore not be considered consistent with the existing Air Quality Management Plans.
- **Impact AIR-2a:** Operation of development projects that could occur from implementation of the General Plan 2042 would generate emissions that would exceed the San Joaquin Valley Unified Air Pollution Control District regional significance thresholds for volatile organic compounds (VOC), nitrogen oxides (NO_x), and carbon monoxide (CO).
- **Impact AIR-2b:** Construction activities associated with buildout of the General Plan 2042 would generate substantial short-term criteria air pollutant emissions that would exceed the San Joaquin Valley Unified Air Pollution Control District regional significance thresholds and cumulative contribute to the nonattainment designations of the San Joaquin Valley Air Basin.
- **Impact AIR-3a:** Implementation of the General Plan 2042 could expose air quality sensitive receptors to substantial toxic air contaminant concentrations from non-permitted sources during operation.
- **Impact AIR-3b:** Construction activities associated with potential future development from implementation of the General Plan 2042 could expose nearby air quality sensitive receptors to substantial concentrations of toxic air contaminants during construction.
- **Impact AIR-5:** Implementation of the General Plan 2042 would generate a substantial increase in emissions that exceeds the San Joaquin Valley Unified Air Pollution Control District significance

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thresholds and would cumulatively contribute to the nonattainment designations and health risk in the San Joaquin Valley Air Basin. *(Note. This is a cumulative impact.)*

- **Impact GHG-1:** Implementation of the General Plan 2042 would not meet the long-term greenhouse gas emissions reduction goal under Executive Order (EO) S-03-05 or substantial progress toward carbon neutrality goals under EO B-55-18.
- **Impact GHG-3:** Implementation of the General Plan 2042 would not meet the long-term greenhouse gas emission reduction goal under Executive Order (EO) S-03-05 or substantial progress toward carbon neutrality goals under EO B-55-18. *(Note. This is a cumulative impact.)*
- **Impact NOI-1a:** Construction activities associated with potential future development projects from implementation of the General Plan 2042 could expose noise sensitive receptors in close proximity to a construction site to construction noise that exceeds 80 a-weighted decibel (dBA) equivalent continuous noise level over an 8-hour period ($L_{eq(8hr)}$).
- **Impact NOI-1b:** Implementation of the General Plan 2042 traffic noise level increases of up to 2.6 a-weighted decibel (dBA) community noise equivalent level (CNEL) are estimated along State Route 152 between Badger Flat Road and Ortigalita Road which would exceed the City's 1.5 dBA increase threshold.
- **Impact NOI-4a:** The General Plan 2042, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to construction noise.
- **Impact NOI-4b:** The General Plan 2042, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to roadway noise on State Route 152 between Badger Flat Road and Ortigalita Road.
- **Impact TRAN-1:** Implementation of the General Plan 2042 would result in a significant vehicle mile traveled (VMT) impact for VMT per service population due to forecast land use growth through 2042, based on a comparison of the VMT rate increment for VMT per service population to the corresponding average baseline rates for the Merced County region.
- **Impact TRAN-5:** Implementation of the General Plan 2042 would cumulatively contribute to regional VMT.

6.2 GROWTH INDUCEMENT

Section 15126.2(d) 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(d) 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, negative impacts

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associated with growth inducement occur only where the projected growth would cause significant adverse environmental impacts.

Growth-inducing impacts fall into two general categories: direct or indirect. Direct growth-inducing impacts are generally associated with providing urban services to an undeveloped area. Indirect, or secondary growth-inducing impacts consist of growth induced in the region by additional demands for housing, goods, and services associated with the population increase caused by, or attracted to, a new project.

As discussed in detail in Chapter 4.13, *Population and Housing*, of this Draft EIR, the General Plan is the policy document that plans ahead to accommodate the amount of reasonably foreseeable growth given past growth trends and the ability of existing services and infrastructure to support future growth. Therefore, the proposed General Plan update would not directly induce growth, but rather is a response to growth that is likely to occur whether the proposed General Plan is adopted or not. Because the proposed General Plan also includes recommendations for future roadway and infrastructure extension, as it is required to do by State law, it has the potential to indirectly induce growth. However, the proposed General Plan itself is the City's effort to adequately plan for this growth.

The proposed project would include a significant decrease in the projected growth of population, housing, and jobs under the current General Plan 2030. Based on a review of existing conditions and projected trends, the City is not on track to meet the 2030 buildout estimates of the current General Plan and is accordingly revising local growth projections to be more in line with regional growth projections. The projected General Plan 2042 buildout would therefore be well within levels of local growth previously planned by the City of Los Banos. Furthermore, the proposed General Plan maintains the City's UGB in order to direct growth in a focused, compact way.

Additionally, this additional growth would occur incrementally over a period of approximately 20 years and a policy framework is in place to ensure adequate planning occurs to accommodate it. The proposed project results in mixed-use development and employment centers and implements energy and water conservation requirements related to existing and new development, thereby minimizing consumption of non-renewable resources to the extent practicable.

6.2.1 DIRECT IMPACTS

The proposed project is a plan-level document and does not propose any specific development; however, implementation of the proposed project would induce growth by increasing the development potential in the EIR Study Area, as shown in Table 3-3, *Proposed 2042 Buildout Projections in the EIR Study Area*, Chapter 3, *Project Description*, of this Draft EIR. As shown in Table 3-3, the 2042 forecast for the EIR Study Area is approximately 20,200 households; 21,700 residential units; 72,500 total population, and 12,000 jobs.

State law requires the City to promote the production of housing to meet its fair share of the regional housing needs distribution made by Merced County Area Governments (MCAG). While the City provides adequate sites to meet its fair-share housing obligations, the additional housing capacity provided by the project would meet the additional demand generated by new job growth.

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In addition, the proposed General Plan 2042 would result in regional benefits by promoting growth that encourages less automobile dependence, which could have associated air quality and GHG benefits. Encouraging infill growth in designated areas would help to reduce development pressures on lands outside the city boundary.

6.2.2 INDIRECT IMPACTS

The proposed project could be considered growth inducing because it includes policies and actions that encourage new growth in the urbanized areas of Los Banos. Development in these areas would consist of infill development on underutilized sites, sites that have been previously developed, and that are vacant and have been determined to be suitable for development. However, infrastructure is largely in place and 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 new significant environmental impact which has not already been addressed in the individual resource chapters of this EIR.

Additional population and employment growth would occur incrementally over a period of approximately 20 years and would be consistent with the regional planning objectives established for the Merced County region.

6.3 SIGNIFICANT AND 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 herein.

6.3.1 CHANGES IN LAND USE THAT COMMIT FUTURE GENERATIONS

As described in detail in Chapter 3, *Project Description*, of this Draft EIR, the proposed project generally maintains the land use pattern of the existing General Plan. While new land uses are not introduced in the proposed project, development is encouraged in existing urban areas, and new development is required to be contiguous with the existing city limits. The current General Plan provided development allocations for buildout of the city through the year 2030. Some future development under the proposed project would be located on land that is generally urbanized or on infill sites and sites in developed areas that are underutilized. However, some potential future development may occur on vacant or agricultural sites that are already designated for development. Once future development under the proposed project occurs, it would not be feasible 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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6.3.2 IRREVERSIBLE DAMAGE FROM ENVIRONMENTAL ACCIDENTS

Irreversible changes to the physical environment could occur from accidental release of hazardous materials associated with development activities; however, compliance with the applicable regulations and General Plan goals, policies, and actions as discussed in Chapter 4.9, *Hazards and Hazardous Materials*, would ensure these impacts would be less than significant. Therefore, irreversible damage is not expected to result from the adoption and implementation of the proposed project.

6.3.3 LARGE COMMITMENT OF NONRENEWABLE RESOURCES

Implementation of development allowed under the proposed project would result in the commitment of limited, renewable resources such as lumber and water. In addition, development allowed by the proposed project would irretrievably commit nonrenewable resources for the construction of buildings, infrastructure, and roadway improvements. These nonrenewable resources include mined minerals such as sand, gravel, steel, lead, copper, and other metals. Future buildout under implementation of the proposed project also represents a long-term commitment to the consumption of fossil fuels, natural gas, and gasoline. Increased energy demands would be used for construction, lighting, heating, and cooling of residences, and transportation of people within, to, and from Los Banos. However, as shown in Chapter 4.6, *Energy*, and in Section 4.16.1, *Water*, and Section 4.16.4, *Solid Waste*, of Chapter 4.16, *Utilities and Service Systems*, of this Draft EIR, several regulatory measures and General Plan policies and actions encourage energy and water conservation, alternative energy use, waste reduction, alternatives to automotive transportation, and green building. Future development, as a result of increased development allocation under the proposed project, would be required to comply with all applicable building and design requirements, including those set forth 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 install low pollutant-emitting materials. Therefore, while the construction and operation of future development, as a result of increased development allocations under the proposed project, would involve the use of nonrenewable resources, compliance with applicable standards and regulations and implementation of General Plan policies would reduce the use of nonrenewable resources to the maximum extent practicable; therefore, the proposed project would not represent a large commitment of nonrenewable resources in comparison to a business-as-usual situation.

7. Organizations and Persons Consulted

This Draft Environmental Impact Report (EIR) was prepared by the contributors listed herein and includes content and information provided by individuals with the lead agency, other agencies, service providers, consultants, and other contributors.

7.1 LEAD AGENCY

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8. *Acronyms and Abbreviations*

ACRONYM/ ABBREVIATION	DEFINITION
°F	degrees Fahrenheit
µg/m ³	micrograms per cubic meter
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ACE	Affordable Clean Energy
AFY	acre-feet per year
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
ALUCP	Merced County Airport Land Use Compatibility Plan
AOI	Area of Interest
AQMP	The air quality management plan
BACT	Best Available Control Technology
BAU	business as usual
BERD	Built Environment Resource Directory
BMP	best management practice
BO	Biological Opinion
CAA	Clean Air Act
CAFE	Corporate Average Fuel Economy
CalARP	California Accidental Release Prevention
CalEMA	California Emergency Management Agency
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Cal OES	California Office of Emergency Services
CalOSHA	California Division of Occupational Safety and Health
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CARI	California Aquatic Resource Inventory
CBC	California Building Code
CCAP	Climate Change Action Plan
CCIC	Central California Information Center
CCID	Central California Irrigation District
CCR	California Code of Regulations

ACRONYMS AND ABBREVIATIONS

ACRONYM/ ABBREVIATION	DEFINITION
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CEC	California Energy Commission
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CES	CalEnviroScreen
CFC	California Fire Code
CFD	Community Facilities District
CFR	Code of Federal Regulations
CGP	Construction General Permit
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon monoxide
CO ₂ e	Carbon dioxide-equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DEH	Merced County Department of Public Health, Division of Environmental Health
DOC	degradable organic component
DPH	Merced County Department of Public Health
DPM	Diesel particulate matter
DTSC	Department of Toxic Substances Control
EAP	emergency action plan
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EMS	Emergency Medical Services
EO	Executive Order
EOP	Emergency Operations Plan
EPCRA	Emergency Planning Community Right-to-Know Act
ESA	Endangered Species Act
ETRIP	Employer Trip Reduction Implementation Plan
FAA	Federal Aviation Administration

ACRONYMS AND ABBREVIATIONS

ACRONYM/ ABBREVIATION	DEFINITION
FAR	floor-area ratio
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
FHSZ	fire hazard severity zone
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FRA	federal responsibility area
FTA	Federal Transit Administration
GAMAQI	<i>Guidance for Assessing and Mitigating Air Quality Impacts</i>
GEA	Grassland Ecological Area
GHG	Greenhouse gas
GIS	geographic information system
GRCD	Grassland Resource Conservation District
GSA	groundwater sustainability agency
GSP	groundwater sustainability plan
GWD	Grassland Water District
GWP	Global warming potential
HCP	Habitat Conservation Plan
HMBP	Hazardous Materials Business Plan
HUD	US Department of Housing and Urban Development
HVAC	Heating, ventilation, and air conditioning
Hz	Hertz
I-	Interstate
in/sec	inches per second
IPCC	Intergovernmental Panel on Climate Change
ISO	Insurance Services Office
IWRMP	Integrated Regional Water Management Plan
KBTU	kilo-BTU
kW	kilowatts
kWh	kilowatt-hours
LBFD	Los Banos Fire Department
LBMC	Los Banos Municipal Code
LBPD	Los Banos Police Department
LBUSD	Los Banos Unified School District
LCFS	Low Carbon Fuel Standard
LCFF	Local Control Funding Formula
LDIGR	Land Development and Intergovernmental Review
L _{dn} or DNL	Day-Night Sound Level
L _{eq}	Equivalent Continuous Noise Level

ACRONYMS AND ABBREVIATIONS

ACRONYM/ ABBREVIATION	DEFINITION
LID	Low-Impact Development
LGOP	Local Governments Protocol
LRA	local responsibility area
LUST	leaking underground storage tank
LUSTIS	Leaking Underground Storage Tank Information System
MBTA	Migratory Bird Treaty Act
MCAG	Merced County Association of Governments
MCL	maximum contaminant level
MCRWMA	Merced County Regional Waste Management Authority
MCT	Merced County Transit
MEI	Maximum Exposed Individuals
Merced LAFCO	Local Agency Formation Commission of Merced County
MJHMP	Multi-Jurisdictional Hazard Mitigation Plan
MLD	Most Likely Descendant
MMRP	Mitigation Monitoring and Reporting Program
MMTCO ₂ e	Million metric tons of CO ₂ e
MOA	Memorandum of Agreement
MPG	miles per gallon
MPO	metropolitan planning organization
MTCO ₂ e	Metric ton of CO ₂ e
MWEL	Model Water Efficient Landscape Ordinance
NAHC	Native American Heritage Commission
NFPA	National Fire Protection Association
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO ₂	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOP	Notice of Preparation
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRHP	National Register of Historic Places
O ₃	Ozone
OEHHA	Office of Environmental Health and Hazard Assessment
OHP	Office of Historic Preservation
OSHA	Occupational Safety and Health Administration
PA	Programmatic Agreement
PCE	Peninsula Clean Energy
PG&E	Pacific Gas and Electric Company

ACRONYMS AND ABBREVIATIONS

ACRONYM/ ABBREVIATION	DEFINITION
PM ₁₀	coarse inhalable particulate matter
PM _{2.5}	fine inhalable particulate matter
PPB	parts per billion
PPC	public protection classification
PPM	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
PRD	Permit Registration Document
PWD	Public Works Department
R&D	research and development
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Act Information System
RHNA	Regional Housing Needs Allocation
RPS	Renewables Portfolio Standard
RTAC	Regional Transportation Advisory Committee
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SAFE	Safer Affordable Fuel Efficient
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCS	Sustainable Communities Strategy
SDSMP	Storm Drainage System Master Plan
SEL	single-event level
SEMS	Standard Emergency Management System
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Unified Air Pollution Control District
SLDWMA	San Luis and Delta-Mendota Water Authority
SMARTS	Stormwater Multiple Application and Report Tracking System
SO ₂	sulfur dioxide
SOI	Sphere of Influence
SR-	State Route
SRA	state responsibility area
SSC	Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan
SWQCB	State Water Quality Control Board
SWRP	Stormwater Resource Plan
TAC	toxic air contaminant

ACRONYMS AND ABBREVIATIONS

ACRONYM/ ABBREVIATION	DEFINITION
TCP	Traditional Cultural Properties
TMDL	Total Maximum Daily Load
TPZ	Timberland Production Zone
TRU	transport refrigeration unit
UGB	Urban Growth Boundary
UP	University of Pacific
URM	Unreinforced Masonry
USACE	U.S. Army Corps of Engineers
USC	US Code
SDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VMT	vehicle miles traveled
VOC	volatile organic compound
WUI	wildland-urban interface
WWTP	wastewater treatment plant
ZE	zero-emission
ZEV	zero-emission vehicle
ZNE	zero net energy





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