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DRAFT ENVIRONMENTAL IMPACT REPORT

501 Industrial Road Hotel Draft EIR

for the City of San Carlos

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August 11, 2023

Draft Environmental Impact Report

State Clearinghouse Number: 2022010033

501 Industrial Road Hotel Draft EIR

for the City of San Carlos

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1. Executive Summary

This chapter presents an overview of the proposed 501 Industrial Road Hotel project, herein referred to as "proposed project." This executive summary 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 Chapters 4.1 through 4.13 of this Draft Environmental Impact Report (EIR). For a complete description of the proposed project, see Chapter 3, *Project Description*, of this Draft EIR. For a discussion of alternatives to the proposed project, see Chapter 5, *Alternatives*, of this Draft EIR.

This Draft EIR addresses the environmental effects associated with the 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 and 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 CEQA (California Public Resources Code, Division 13, Section 21000, et seq.) and the State CEQA Guidelines (Title 14 of the California Code of Regulations, Division 6, Chapter 3, Section 15000, et seq.) to determine if approval of the identified discretionary actions and related subsequent development could have a significant impact on the environment. The City of San Carlos, as the Lead Agency, 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 subconsultant reports. Information for this Draft EIR was obtained from on-site field observations; discussions with affected 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, geotechnical and transportation and traffic).

1.1 ENVIRONMENTAL PROCEDURES

This Draft EIR has been prepared pursuant to CEQA to assess the environmental effects associated with implementation of the proposed project, as well as anticipated future discretionary actions and approvals. The six main objectives of this document as established by CEQA are listed below:

- To disclose to decision-makers and the public the significant environmental effects of proposed activities.
- To identify ways to avoid or reduce environmental damage.
- 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 CEQA and the CEQA Guidelines and provides the information needed to assess the environmental consequences of a project, to the extent feasible. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a 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 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 Considerations if the project would result in a significant impact or impacts that cannot be avoided.

1.1.1 REPORT ORGANIZATION

This Draft EIR has been formatted as described below.

- Chapter 1. Introduction: Describes the purpose of this Draft EIR, background on the proposed project, the Notice of Preparation (NOP), the use of incorporation by reference, and Final EIR certification.
- Chapter 2. Executive Summary: Summarizes the background and description of the proposed project, the format of this Draft EIR, project alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and mitigation measures identified for the proposed project.
- Chapter 3. Project Description: A detailed description of the proposed project location and the environmental setting on and surrounding the project site, the proposed project, the objectives of the proposed project, approvals anticipated being included as part of the proposed project, the necessary environmental clearances for the proposed project, and the intended uses of this Draft EIR.
- Chapter 4. Environmental Analysis: Organized into 12 sub-chapters corresponding to the environmental resource categories identified in Appendix G, Environmental Checklist, of the CEQA Guidelines, this chapter provides a description of the physical environmental conditions in the vicinity of the proposed project as they existed at the time the NOP was published, from both a local and regional perspective, as well as an analysis of the potential environmental impacts of the proposed project, and recommended mitigation measures, if required, to reduce their significance. The environmental setting included in each sub-chapter provides baseline physical conditions from which the Lead Agency determines the significance of environmental impacts resulting from the proposed project. Each sub-chapter 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: Considers two alternatives to the proposed project, including the CEQA-required "No Project" alternative, and a Lower-Intensity Hotel Alternative.
- Chapter 6. CEQA Mandated Sections: Discusses growth inducement, cumulative impacts, unavoidable significant effects, and significant irreversible changes as a result of the proposed project. Additionally, this chapter identifies environmental issues with no impacts pursuant to CEQA Guidelines Section 15128.
- Chapter 7: Organizations and Persons Consulted. Lists the people and organizations that were contacted during the preparation of this EIR for the proposed project.
- Appendices. The appendices for this document (presented in PDF format on a CD attached to the back cover) contain the following supporting documents:
  - Appendix A: Notice of Preparation, Initial Study, and Scoping Comments
  - Appendix B: Project Site Plans
  - Appendix C: Air Quality and Greenhouse Gas Modeling
  - Appendix D: Geotechnical Report
  - Appendix E: Hazardous Materials
  - Appendix F: Hydrology and Water Quality
  - Appendix G: Noise Data
  - Appendix H: Transportation
  - Appendix I: Emergency Access
  - Appendix J: Federal Aviation Administration Determination

1.1.2 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. Given the short-term nature of the proposed project and the permitting 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 project EIR, pursuant to Section 15161of the CEQA Guidelines. As a project EIR, the environmental analysis will focus primarily on the changes in the environment that would result from the development of the 501 Industrial Road Hotel project. This project EIR will examine the specific short-term impacts (construction) and long-term impacts (operation) that would occur as a result of proposed project approval by the City of San Carlos City Council.

1.2 SUMMARY OF THE PROPOSED PROJECT

Holly Hotel Group, LLC, the Project Applicant (Applicant), is proposing the 501 Industrial Road Hotel project ("proposed project"), also known as Hotel Indigo. The proposed project would involve developing a vacant, 2.09-acre site (project site) in eastern San Carlos, just east of the intersection of Industrial Road and Holly Street. The proposed hotel would consist of two connected sections: a main guestroom tower that would be six stories in height along Holly Street and facing Highway 101, and an adjoining three-story structure along Industrial Road. The hotel would be approximately 136,000 gross square feet in size, and would include 188 guestrooms, a lobby, a dining area, and meeting spaces. The lobby and second-floor meeting spaces would be situated around a landscaped courtyard in the center of the site. The proposed project is described in further detail in Chapter 3, *Project Description*, of this Draft EIR.

1.3 SUMMARY OF ALTERNATIVES TO THE PROPOSED PROJECT

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 some 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:

- No Project Alternative
- Lower-Intensity Hotel Alternative

Chapter 5, *Alternatives*, to the proposed project, of this Draft EIR, includes a complete discussion of these alternatives and of alternatives that were rejected for various reasons.

1.4 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 San Carlos, as Lead Agency, related to:

- Whether this Draft EIR adequately describes the environmental impacts of the proposed project.
- Whether the proposed land use changes are compatible with the character of the existing area.
- Whether the identified 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.

1.5 AREAS OF CONTROVERSY

On January 3, 2022, the City of San Carlos issued a NOP for the 501 Industrial Road Hotel EIR. The scoping period for this Draft EIR was between January 3 and February 3, 2022, during which interested agencies and the public could submit comments about the proposed project. During this time, the City received 3 comment letters from the Native American Heritage Commission (NAHC), California Department of Transportation (Caltrans) and Department of Toxic Substances Control (DTSC). These letters are provided in Appendix A, *Notice of Preparation, Initial Study, and Scoping Comments*, of this Draft EIR.

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. While every concern applicable to the CEQA process is addressed in this Draft EIR, this list is not necessarily exhaustive, but rather attempts to capture those concerns that are likely to generate the greatest interest based on the input received during the scoping process.

- Hazardous Materials (soil vapor intrusion)
- Hydrology and Water Quality (drainage, flood control, stormwater)
- Transportation (VMT and impact fees)

1.6 SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Under CEQA, a significant impact on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by a project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance. While the proposed project has the potential to generate significant environmental impacts in a number of areas, as described in Chapter 6.0, *CEQA Mandated Sections*, of this Draft EIR, the proposed project would have no significant impact on the following environmental topics due to existing conditions on the project site and surrounding area. These issues have therefore not been analyzed further in this Draft EIR.

- Aesthetics
- Agricultural and Forestry Resources
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Wildfire

Table 1-1, *Summary of Significant Impacts and Mitigation Measures*, summarizes the conclusions of the environmental analysis contained in this Draft EIR and presents a summary of significant impacts and mitigation measures identified. It is organized to correspond with the environmental issues discussed in Chapter 4.1 through 4.13. The table is arranged in four columns: 1) significant environmental impacts; 2) significance prior to mitigation; 3) mitigation measures; and 4) significance after mitigation. For a complete description of potential impacts, please refer to the specific discussions in Chapters 4.1 through 4.13.

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
AIR QUALITY			
AQ-2: Uncontrolled fugitive dust (PM_{10} and $PM_{2.5}$) could expose the areas that are downwind of construction sites to air pollution from construction activities without the implementation of the Air District's best management practices.	S	**AQ-2:** The project contractor shall comply with the Bay Area Air Quality Management District's (BAAQMD) basic best management practices for reducing construction emissions of uncontrolled fugitive dust (coarse inhalable particulate matter [PM_{10}] and fine inhalable particulate matter [$PM_{2.5}$]): ▪ All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. ▪ All haul trucks transporting soil, sand, or other loose material off-site shall be covered. ▪ All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. ▪ All vehicle speeds on unpaved roads shall be limited to 15 mph. ▪ All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. ▪ All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. ▪ All trucks and equipment, including their tires, shall be washed off prior to leaving the project site. ▪ Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel. ▪ Publicly visible signs shall be posted with the telephone number and name of the person to contact at the City of San Carlos regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations. These measures shall be noted on grading plans prepared by the applicant submitted to the City of San Carlos. The construction contractor shall implement these measures during ground disturbing activities. The City of San Carlos Building Division shall verify compliance that these measures have been implemented during normal construction site inspections.	LTS
AQ-3: Construction activities of the proposed project could expose sensitive receptors to substantial concentrations of toxic air contaminants, exceeding the applicable Air District threshold.	S	**AQ-3:** Construction contractors shall use United States Environmental Protection Agency Tier 4 Interim equipment for all off-road, diesel-powered construction equipment of greater than 50 horsepower (HP) that are in use over 20 hours and Tier 4 Final equipment for all off-road, diesel-powered equipment of 50 or less HP that are in use over 20 hours, unless it can be demonstrated to the City of San Carlos Building Division that such equipment is not commercially available. For purposes of this mitigation measure, "commercially available" shall	LTS

TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		mean the availability of Tier 4 Interim and Tier 4 Final engines similar to the availability for other large-scale construction projects in the city occurring at the same time and taking into consideration factors such as (i) potential significant delays to critical-path timing of construction and (ii) geographic proximity to the project site of Tier 4 Interim and Tier 4 Final equipment. Where such equipment is not commercially available, as demonstrated by the construction contractor, Tier 3 equipment retrofitted with a California Air Resources Board's Level 3 Verified Diesel Emissions Control Strategy shall be used. Furthermore, all diesel generators, if used, shall be fitted with a Level 3 diesel particulate filter (DPF). The requirement to use Tier 4 Interim and Tier 4 Final equipment for all off-road, diesel-powered construction equipment in use over 20 hours, and the requirement for diesel-powered generators fitted with Level 3 DPF shall be identified in construction bids. In addition, the following shall also be completed: ▪ Requirements for off-road equipment: ▪ Prior to construction, the project engineer shall ensure that all demolition and grading plans clearly show the requirement for United States Environmental Protection Agency Tier 4 Interim or higher emissions standards for all off-road, diesel-powered construction equipment in use over 20 hours and the level 3 DPF for all diesel generators. ▪ During construction, the construction contractor shall maintain a list of all operating off-road equipment in use over 20 hours on the construction site for verification by the San Carlos Building Division. ▪ The construction equipment list shall state the makes, models, Engine Identification Numbers, Engine Family Numbers, and numbers of off-road construction equipment on-site. ▪ To the extent that equipment is available and cost-effective, contractors shall use electric, hybrid, or alternate-fueled off-road construction equipment. ▪ Contractors shall use electric construction tools, such as saws, drills, and compressors, where grid electricity is available. ▪ Construction contractors shall also ensure that all nonessential idling of construction equipment is restricted to 5 minutes or less in compliance with Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9. ▪ All sub-contracts and construction documents shall identify that all non-essential idling of construction equipment is restricted to 5 minutes or less in compliance with California Air Resources Board Rule 2449. The construction contractor is responsible for ensuring that this requirement is met. ▪ Construction contractors shall water exposed surfaces at least three (3) times per day.	

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		▪ Construction contractors shall apply non-toxic soil stabilizers to exposed disturbed surfaces.	
AQ-5: Cumulative cancer risks from project-related construction activities and existing sources of toxic air contaminants (TACs) would exceed the applicable Air District cumulative threshold and could expose sensitive receptors to substantial cumulative concentrations of TACs.	S	Implement Mitigation Measure AQ-3.	LTS
BIOLOGICAL RESOURCES			
No significant impacts			
CULTURAL RESOURCES			
CULT-2: Implementation of the proposed project would have the potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15064.5.	S	**CULT-2:** Project supervisors, contractors, and equipment operators shall participate in an Archaeological Resource Awareness Training, conducted by a Secretary of Interior-qualified archaeologist, to become familiar with the type of artifacts and features that could be encountered during project-related ground disturbing activities, as well as the procedures to follow if archaeological resources are unearthed during construction. If archaeological resources are encountered during excavation or construction, construction personnel shall immediately suspend all activity within 100 feet of the suspected resources and the City and a licensed archaeologist shall be contacted to evaluate the situation. A licensed archaeologist shall be retained to inspect the discovery and determine the significance of the find and the appropriate mitigation. If the deposits are determined to be potentially significant, the resources shall be avoided if feasible. If avoidance is not feasible, project impacts shall be mitigated in accordance with the recommendations of the archeologist, in coordination with the City, local tribe, and the CEQA Guidelines Section 15126.4 (b)(3)(C), which requires implementation of a data recovery plan. Once the recovery plan has been reviewed and approved by the City, implemented, and any appropriate resource recovery completed, project construction activity within the area of the find may resume.	LTS
CULT-3: Construction activities may result in unanticipated discovery of human remains interred outside of dedicated cemeteries.	S	**CULT-3:** In the event a human burial or skeletal element is identified during excavation or construction, all work must stop within 100 feet of the discovery area and the area shall be secured to prevent further disturbance. The City and the San Mateo County Coroner's office shall be notified immediately. If deemed prehistoric, the Coroner's office would notify the Native American Heritage Commission within 24 hours. The Native American Heritage Commission would identify a "Most Likely Descendant (MLD)." The archaeological consultant and MLD, in conjunction with the project sponsor, shall formulate an appropriate treatment	LTS

TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		plan for the find, which might include, but not be limited to, respectful scientific recording and removal, being left in place, removal and reburial on-site, or elsewhere. Associated grave goods are to be treated in the same manner.	
ENERGY			
No significant impacts			
GEOLOGY AND SOILS			
GEO-1: The proposed project would result in the placement of a new building in an area susceptible to ground shaking, potentially resulting in significant loss, injury, or death.	S	**GEO-1:** Project construction shall adhere to the recommendations of the October 21, 2019, Professional Service Industries G*eotechnical Engineering Report for the Proposed Hotel Indigo*, 501 Industrial Road, San Carlos, California (Project Geotechnical Report) which provides preliminary recommendations for site preparation, engineered fill, excavation, foundations, concrete slabs, below-grade walls, retaining walls, drainage, pavement, corrosivity, and construction monitoring.	LTS
GEO-6: The proposed project could cause damage to, or destruction of, unknown paleontological resources or unique geologic features due to ground-disturbing construction.	S	**GEO-6**: In the event that fossils or fossil-bearing deposits are discovered during construction, excavations within 50 feet of the find shall be temporarily halted or diverted. The contractor shall notify a qualified paleontologist to examine the discovery. The paleontologist shall document the discovery, as needed, in accordance with Society of Vertebrate Paleontology standards, evaluate the potential resource, and assess the significance of the finding under the criteria set forth in California Environmental Quality Act (CEQA) Guidelines Section 15064.5. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the project proponent determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the proposed project based on the qualities that make the resource important. The plan shall be submitted to the City of San Carlos for review and approval prior to implementation.	LTS
GREENHOUSE GAS EMISSIONS			
No significant impacts			
HAZARDS AND HAZARDOUS MATERIALS			
HAZ-4: The project site falls within the Overflight Easement Review Area (OERA) boundary for San Carlos Airport and mitigation would be required to ensure that the proposed project complies with Airport Land Use Compatibility Plan (ALCUP) guidance intended to prevent significant impacts due to	S	**HAZ-4:** The ALUCP guidance states that dedication of an avigation easement, restricting the heights of structures or trees, to the County of San Mateo should be considered as a condition for any discretionary local approval for any property within the OERA boundary. The avigation easement shall: ▪ Identify the potential hazard associated with the proposed project and its location within protected airspace;	LTS

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
proximity to San Carlos Airport.		▪ Identify the airport owner's right to clear or maintain the airspace from potential hazards; ▪ Identify the right to mark potential obstructions and notify aviators of such hazards; and ▪ Provide the right to pass within the identified airspace.	
HYDROLOGY AND WATER QUALITY			
No significant impacts			
LAND USE AND PLANNING			
No significant impacts			
NOISE			

NOI-1: Construction noise generated by the proposed project would exceed established threshold of 80 dBA Leq at the property line of the Residence Inn hotel during asphalt demolition, paving, and overlapping building construction, architectural coating, and paving phases.	S	**NOI-1:** The project applicant shall incorporate the following practices into the construction contract specifications to be implemented by the construction contractor during the entire construction phase of the proposed project. The project applicant and contractors shall prepare a Construction Noise Control Plan that includes the following measures:
		▪ The construction contractor shall appoint a liaison to coordinate directly with Residence Inn hotel management and the Greater Eastside Neighborhood Association on a weekly basis throughout the entire project construction to discuss ongoing construction schedule updates and noise concerns. The appointed liaison shall provide their contact information to the hotel management at least 10 days prior to the start of construction.
		▪ A masonry wall exists along the boundary between the project site and the Residence Inn hotel to the southeast. This wall shall be maintained and extended to 10 feet in height during building construction or, if this wall is no longer existing at the time of project construction or is removed, the construction manager shall erect a new temporary sound barrier/curtain along the project boundary between the construction zone and the Residence Inn hotel to the southeast. A second temporary noise barrier/curtain shall also be erected along the southwest project boundary to reduce noise levels at the residences across Industrial Road. The temporary sound barrier shall have a minimum height of 8 feet and be free of gaps and holes (including from the ground). The barrier(s) should be constructed of either:
		  ▪ a 0.75-inch-thick plywood wall; or
		  ▪ a hanging blanket/curtain with a surface density of at least 2 pounds per square foot; or
		  ▪ other similar sound attenuation feature that achieves equivalent reductions, should an alternative method be necessary based on-site constraints.
		▪ Construction trucks and equipment shall utilize the best available noise control techniques
			LTS

TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		including improved mufflers, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds, wherever feasible. ▪ Impact tools (e.g., pneumatic or electrical impact wrench, gun, torque gun) shall be hydraulically or electrically powered. Where the use of pneumatic tools is unavoidable, they shall include exhaust mufflers on the compressed air exhaust and external noise jackets on the tools. ▪ Signs shall be posted 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. The signs shall note that all other equipment shall be turned off if not in use for more than 5 minutes. The construction manager shall be responsible for enforcing these noise reduction requirements. ▪ During the entire active construction period, the use of noise-producing signals—including horns, whistles, alarms, and bells—shall be for safety warning purposes only. The construction manager shall require the use of smart back-up alarms on equipment. (These devices automatically adjust the alarm level based on the background noise level.) Alternately, equipment back-up alarms may be turned off and replaced with human spotters in compliance with all safety requirements and laws. ▪ Stationary noise sources (e.g., generators and air compressors) shall be located as far from the southeast and southwest property lines as possible, and they shall be muffled and enclosed within temporary sheds, insulation barriers, or other measures to reduce noise levels to below 80 dBA Leq. ▪ Material stockpiles shall be located as far as feasible from the southeast and southwest property lines to reduce noise from trucks and tractors. ▪ At least 10 days prior to the start of any construction activity on the project site, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours, as well as the telephone numbers of the City's and contractor's authorized representative that is assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, they shall investigate, take appropriate corrective action, and report the action to the City.	
TRANSPORTATION			
TRAN-4: The proposed emergency vehicle access does not comply with applicable code requirements related to fire safety, and the proposed project has	S	**TRAN-4:** Prior to issuance of building permits, the project sponsor shall obtain final approval of an Alternative Materials and Methods Request(s) from the City of San Carlos.	LTS

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
inadequate emergency access due to the lack of a second emergency egress point.			
TRIBAL CULTURAL RESOURCES			
TCR-1.1: Implementation of the proposed project may cause a substantial adverse change in the significance of a tribal cultural resource, as defined in Public Resources Code Section 21074.	S	**TCR-1.1:** Project supervisors, contractors, and equipment operators shall participate in an Archaeological Resource Awareness Training, conducted by a Secretary of Interior-qualified archaeologist, to become familiar with the type of artifacts and features that could be encountered during project-related ground disturbing activities, as well as the procedures to follow if archaeological resources are unearthed during construction. If archaeological resources are encountered during excavation or construction, construction personnel shall immediately suspend all activity within 100 feet of the suspected resources and the City and a licensed archaeologist shall be contacted to evaluate the situation. A licensed archaeologist shall be retained to inspect the discovery and determine the significance of the find and the appropriate mitigation. If the deposits are determined to be potentially significant, the resources shall be avoided if feasible. If avoidance is not feasible, project impacts shall be mitigated in accordance with the recommendations of the archeologist, in coordination with the City, local tribe, and the California Environmental Quality Act (CEQA) Guidelines Section 15126.4 (b)(3)(C), which requires implementation of a data recovery plan. Once the recovery plan has been reviewed and approved by the City, implemented, and any appropriate resource recovery completed, project construction activity within the area of the find may resume.	**LTS**
TCR-1.2: Implementation of the proposed project could cause a substantial adverse change in the significance of a tribal cultural resource pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.	S	**TCR-1.2:** In the event a human burial or skeletal element is identified during excavation or construction, all work must stop within 100 feet of the discovery area and the area shall be secured to prevent further disturbance. The City and the San Mateo County Coroner's office shall be notified immediately. If deemed prehistoric, the Coroner's office would notify the Native American Heritage Commission within 24 hours. The Native American Heritage Commission would identify a "Most Likely Descendant (MLD)." The archaeological consultant and MLD, in conjunction with the project sponsor, shall formulate an appropriate treatment plan for the find, which might include, but not be limited to, respectful scientific recording and removal, being left in place, removal and reburial on-site, or elsewhere. Associated grave goods are to be treated in the same manner.	**LTS**
UTILITIES AND SERVICE SYSTEMS			
No significant impacts			

2. Introduction

This Draft Environmental Impact Report (EIR) provides an assessment of the potential environmental consequences of implementation of the 501 Industrial Road Hotel project, herein referred to as "proposed project." Additionally, this Draft EIR identifies mitigation measures and alternatives to the proposed project that would avoid or reduce significant impacts. Pursuant to the California Environmental Quality Act (CEQA) Guidelines, Chapter 14 of the California Code of Regulations, Section 15378[a], Project, the proposed development of is considered a "project" subject to environmental review as its approval is "an action [undertaken by a public agency] which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." This Draft EIR compares the development of the proposed project with the existing baseline condition, described in detail in each subchapter (Chapters 4.1 through 4.13). The City of San Carlos (City) is the lead agency for the proposed project. This assessment is intended to inform the City's decision-makers, other responsible agencies,[1] and the public-at-large of the nature of the proposed project and its effect on the environment.

2.1 PROPOSED PROJECT

The proposed project would involve redevelopment of the site on the approximately 2.09-acre site (project site) in the eastern side of San Carlos, just east of the intersection of Industrial Road and Holly Street. The project would result in the development of a 119,000-square-foot hotel that includes 188 guestrooms, lobby, dining area, and meeting spaces. A courtyard would be located towards the center of the project site, providing outdoor space for informal gathering, outdoor dining, and casual recreation. The proposed project is described in more detail in Chapter 3, *Project Description*, of this Draft EIR.

2.2 EIR SCOPE

This Draft EIR is a project-level EIR that identifies and analyzes site-specific potential impacts of the project. This project EIR examines the specific short-term impacts (construction) and long-term impacts (operation) that would occur as a result of project approval and implementation. For a complete listing of environmental topics covered, see Chapter 4.0, *Environmental Analysis*, of this Draft EIR.

[1] "Responsible agencies" are public agencies, other than the Lead Agency, that have discretionary approval over a project.

2.3 ENVIRONMENTAL REVIEW PROCESS

2.3.1 DRAFT EIR

On January 3, 2022, the City circulated the Notice of Preparation (NOP) of an EIR for the proposed project with the Office of Planning and Research State Clearinghouse for a 30-day review period. The NOP and scoping process solicited comments from responsible and trustee agencies, as well as interested parties regarding the scope of the Draft EIR.[2] Appendix A, *Notice of Preparation, Initial Study, and Scoping Comments*, of this Draft EIR contains the NOP and Initial Study, as well as the comments received by the City in response to the NOP.

The scope of environmental issues to evaluate in this EIR was established by the City of San Carlos through the EIR scoping process. The EIR includes an analysis of both the proposed project's impacts and cumulative impacts in the following issue areas:

- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation
- Utilities and Service Systems
- CEQA-Mandated Assessment Conclusions:
  - Impacts Found Not to Be Significant
  - Significant Unavoidable Impacts
  - Significant Irreversible Changes
  - Growth-Inducing Impacts

This Draft EIR will be available for review by the public and interested parties, agencies, and organizations for a 45-day comment period starting on August 11, 2023, and ending on September 25, 2023. During the comment period, the public is invited to submit written comments on the Draft EIR by mail or email to the City of San Carlos Planning Department. Written comments should be submitted to:

Lisa Costa Sanders, Principal Planner
City of San Carlos, Planning Department
600 Elm St, San Carlos, CA 94070-3085
Email: lcostasanders@cityofsancarlos.org

Written and/or verbal comments on the Draft EIR will also be accepted at a Planning Commission hearing, during the public comment period, which will be legally noticed and is tentatively scheduled for August 21, 2023.

[2] While "responsible agencies" are public agencies, other than the Lead Agency, that have discretionary approval over a project, "trustee agencies" are State agencies with jurisdiction over natural resources affected by a project.

2.3.2 FINAL EIR

Upon completion of the 45-day review period for the Draft EIR, the City of San Carlos will review all comments received and prepare written responses for each comment on the adequacy of the Draft 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 City of San Carlos for 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 before the City.

The City Council will review the Final EIR and the proposed project as the decision-making body for the EIR and the proposed project. A City Council public hearing will be scheduled to concurrently consider certification of the Final EIR and a decision on the project following Planning Commission hearing and recommendation. If the City Council determines that the project may be approved, the Planning Commission will adopt and incorporate into the project all feasible mitigation measures identified in the EIR and may also require other conditions of approval.

In some cases, the City Council may find that certain mitigation measures are outside the jurisdiction of the City to implement, or that there are no feasible mitigation measures for a given significant impact. In that case, the City Council would have to adopt a statement of overriding considerations that determines that economic, legal, social, technological, or other benefits of the proposed project outweigh the unavoidable, significant effects on the environment.

The City Council may also find that the project does not satisfy the required findings for approval and decide to reject the project on that basis. Public input is encouraged at all public hearings before the City.

2.3.3 MITIGATION MONITORING

Public Resources Code Section 21081.6 requires that the lead agency adopt a monitoring or reporting program for any project for which it has made mitigation findings pursuant to Public Resources Code Section 21081. Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR. The Mitigation Monitoring and Reporting Program for the proposed project will be completed and available to the public prior to certification of this EIR.

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3. *Project Description*

The project applicant, Holly Hotel Group, LLC, is proposing the 501 Industrial Road Hotel project, also known as Hotel Indigo and herein referred to as the "proposed project." The proposed project would involve construction of a hotel on a 2.09-acre site which is currently vacant with no existing building structures, except parking lot paving. The proposed project would involve redevelopment of the site with a new six-story hotel with up to 188 rooms, meeting spaces, landscaping, and a courtyard. The proposed project would include ground-level vehicle parking, in addition to bike parking.

This chapter provides a detailed description of the proposed project, including the location, setting, and characteristics of the project site, as well as the project objectives, the principal project features, project phasing, approximate construction schedule, and required permits and approvals.

3.1 OVERVIEW AND SETTING

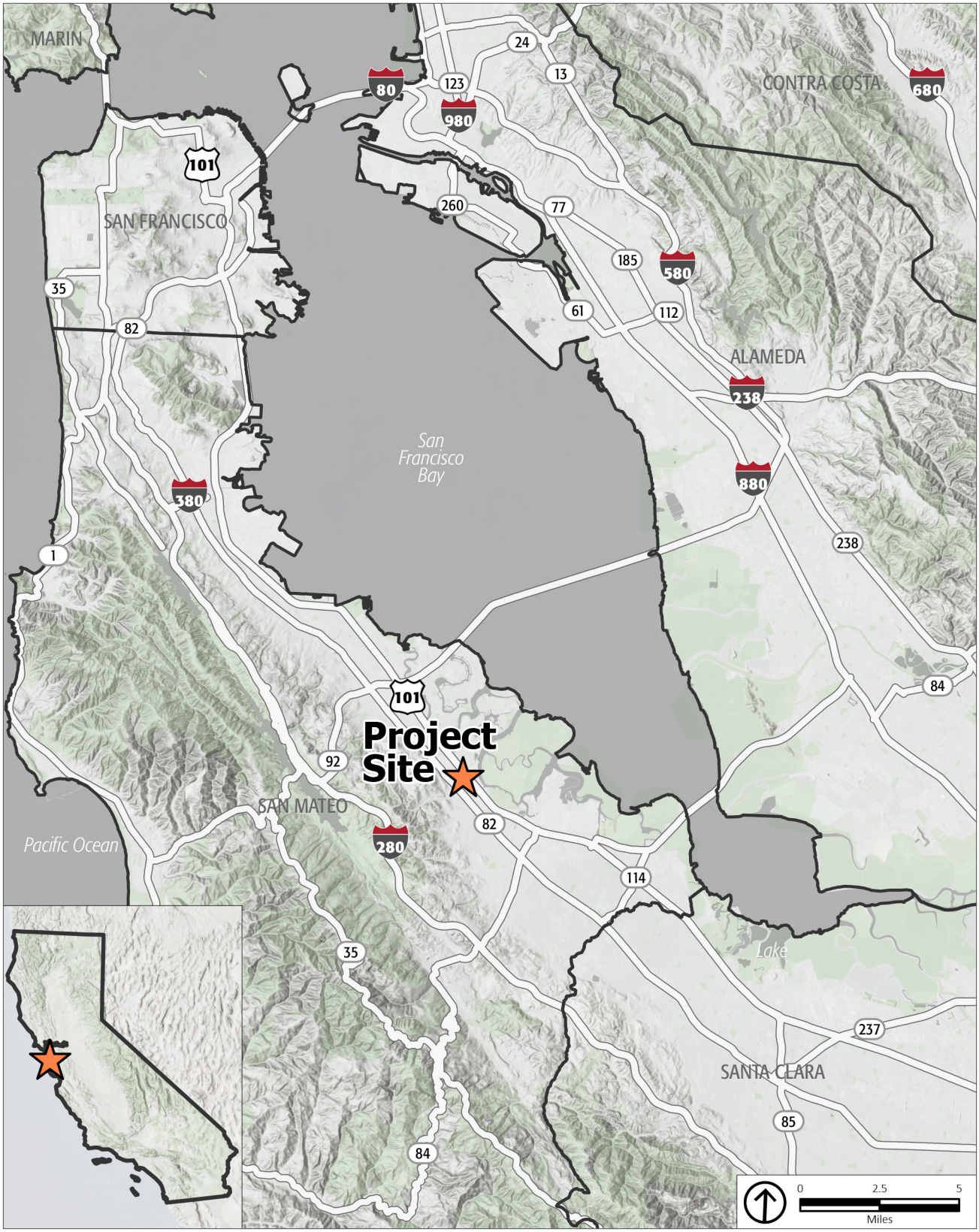
3.1.1 REGIONAL LOCATION

The project site is located at 501 Industrial Road, in the eastern portion of San Carlos, in San Mateo County. It is assigned Assessor's Parcel Number (APN) 046-090-410. Figure 3-1, *Regional and Vicinity Map*, shows the relationship of the project site to San Carlos and the greater San Francisco Bay Area. San Carlos is located 17 miles south of San Francisco and shares a border with the cities of Belmont to the north and Redwood City to the south.

U.S. Highway 101 (also known as Bayshore Freeway) and State Route 82 (SR-82, also known as El Camino Real) provide regional access to the project site. San Mateo County Transit District (SamTrans) and Caltrain via the San Carlos Caltrain Station provide transit service to the project site. Caltrain is operated by the Peninsula Corridor Joint Powers Board.

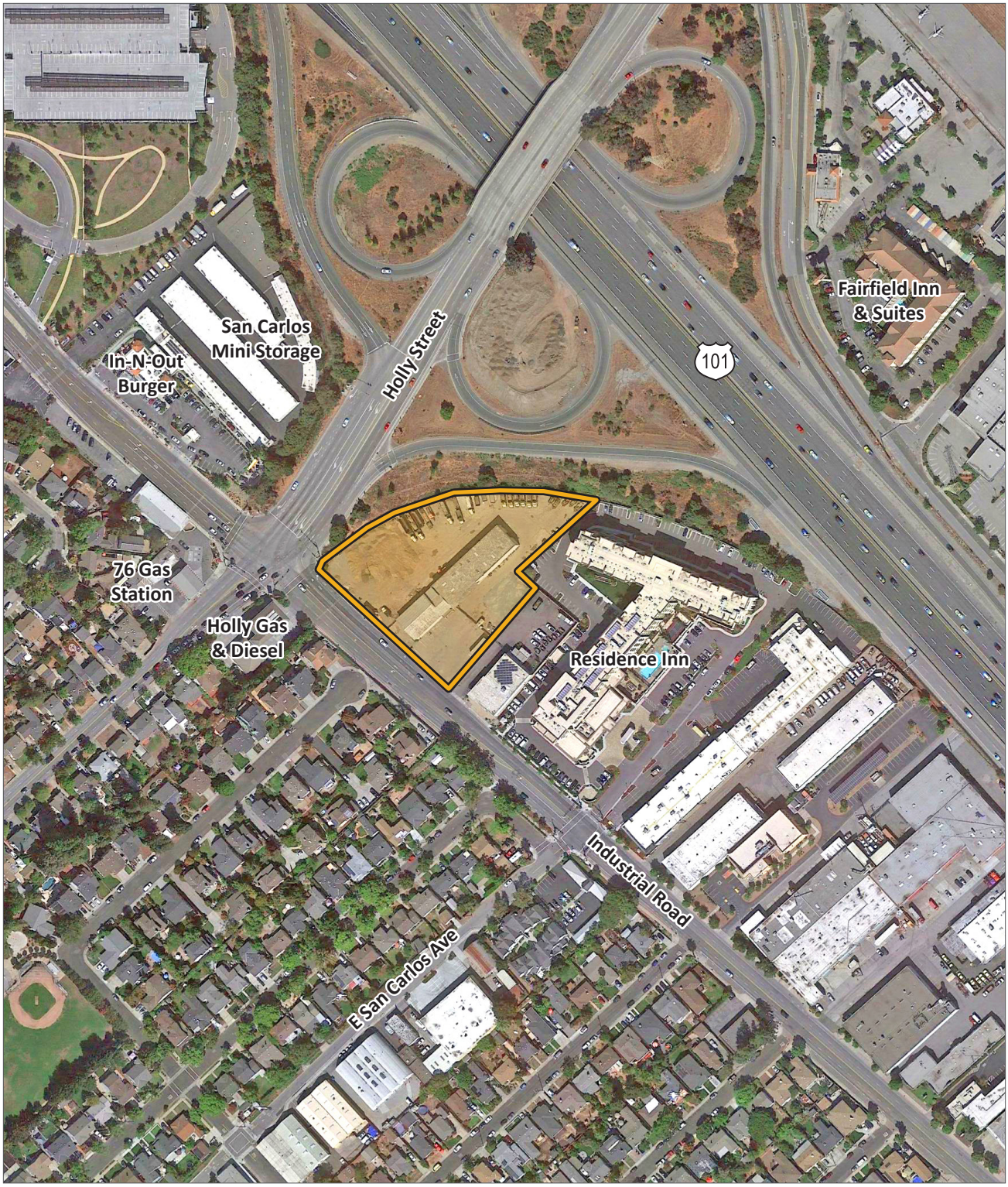
3.1.2 LOCAL SETTING

As shown in Figure 3-2, *Aerial View of Project Site*, the project site is bounded by the U.S. Highway 101 southbound onramp to the north, commercial buildings and a hotel to the east and south, Industrial Road to the southwest, and Holly Street to the northwest. The project site is surrounded by commercial and industrial uses to the north, commercial uses and the San Carlos Airport to the east across U.S. Highway 101, and commercial and residential uses to the south and west. Beyond San Carlos Airport to the east, the San Francisco Bay is located eastward of Steinberger Slough and Bair Island.



Source: Esri, 2019. PlaceWorks, 2021.

Figure 3-1
Regional and Vicinity Map



Source: Google Earth, 2021. PlaceWorks, 2021.

0 300
Scale (Feet)

Project Site Boundary

Figure 3-2
Aerial View of Project Site

The nearest residential neighborhood is to the west of the project site, separated by Industrial Road, which is 75 feet (four lanes) wide. The closest neighborhood park is Laureola Park, about 0.16 miles to the southwest. Edison Montessori School is located about 0.75 miles to the northeast in Redwood Shores; Central Middle School and Arroyo Elementary School are located about 0.75 miles to the southwest in San Carlos. Several other public schools, private schools, and preschools are located within 2 miles of the project site.

The nearest Caltrain station to the project site is the San Carlos station, which is also located approximately 0.4 miles southwest of the project site. The closest SamTrans bus stop is located at the Caltrain station and serves SamTrans. In addition to the San Carlos Airport, about 0.25 miles east of the project site across U.S. Highway 101, the Palo Alto Airport is located about 9 miles to the southeast, and the Moffett Federal Airfield is located approximately 13 miles to the southeast. San Francisco International Airport is located about 16 miles northwest of the project site.

3.1.3 EXISTING SITE CONDITIONS

3.1.3.1 SITE CHARACTER

The 2.09-acre project site is currently undeveloped. There is no landscaping currently on-site. The project site was formerly occupied by the Bayshore Supply business, an electrical, plumbing, lighting, and HVAC (heating, ventilation, and air conditioning) materials retailer.

3.1.3.2 VEGETATION AND LAND COVER

The project site is urban, with no landscaping or vegetation on-site. The site has no existing above-ground structures on it and a portion of the site is paved. Less than thirty percent of the project site contains impervious surfaces consisting of paving, and uncovered parking, and the remaining portion contains pervious surfaces consisting of gravel. The San Carlos General Plan shows the project site as outside of any identified vegetation, habitat area, or wetland area.[1] Additionally, the project site is also outside of areas with known occurrences of sensitive species and habitat as identified in the General Plan.[2]

The California Department of Forestry and Fire Prevention (CAL FIRE) designates fire hazard severity zones throughout the state. The project site is not located in a State Responsibility Area (SRA) high fire hazard severity zone. The nearest SRA fire hazard severity zone is approximately 2.5 miles southwest of the project site.[3] The project site is located with the San Carlos Local Responsibility Area (LRA) but is within a non-very high fire hazard severity zone. The nearest LRA very high fire hazard severity zone is about 1.6

[1] City of San Carlos, 2009, *San Carlos 2030 General Plan*, Figure 6-1, *Vegetation and Habitat Types*, page 114; and Figure 6-2, *Wetlands and Waterbodies*, page 115.

[2] City of San Carlos, 2009, *San Carlos 2030 General Plan*, Figure 6-3, *Known Occurrences of Sensitive Species and Habitat*, page 117.

[3] CAL FIRE, 2007, San Mateo County, Fire Hazard Severity Zones in SRA, https://osfm.fire.ca.gov/media/6802/fhszs_map41.pdf, accessed March 15, 2021.

miles southwest of the project site.[4] The project site is not located within the wildland-urban interface, which is an area of transition between wildland (unoccupied land) and land with human development (occupied land).[5]

The project site is generally flat with an elevation ranging from eight to ten feet above sea level, and a gentle slope toward the northeast.[6]

Stormwater from the site drains to a network of City-maintained storm drains along Industrial Road that collect runoff from city streets and eventually drain to the San Francisco Bay.

3.1.3.3 SITE HISTORY

The project site previously had a gasoline station on-site from at least 1968 through 1982. Based on a Phase I Environmental Site Assessment conducted in September 2019, the project site was identified as a leaking underground storage tank (LUST) site in 1984. Following remediation, the case was closed in 1992. The underground storage tanks were removed in 1984. Historically, contaminated media included soil and groundwater.[7]

Soil vapor sampling was conducted in February 2021 to determine existing conditions, and indicated that some contamination from volatile organic compounds, commonly associated with gasoline impacts, and trace concentrations of chlorinated solvents, are present on-site. Benzene and vinyl chloride were identified at concentrations greater than the San Francisco Bay Regional Water Quality Control Board's environmental screening levels for commercial land use. Potential on-site hazardous materials concerns are addressed in Chapter 4.7, *Hazards and Hazardous Materials*, of this Draft Environmental Impact Report (EIR).

The San Francisco Bay Regional Water Quality Control Board (RWCQB) issued a "Request for Agency Oversight" letter for the subject site dated October 13, 2022 which stated that RWQCB will not open a new case for the subject site based on the Phase I and Phase II environmental site assessments conducted for the subject site and that a passive vapor barrier system would not be required for the subject site.

3.1.4 LAND USE DESIGNATION AND ZONING

3.1.4.1 GENERAL PLAN

The General Plan land use designation for the project site is General Commercial/Industrial. This land use designation allows all retail, service, office, research and development, and industrial uses, and offers

[4] CAL FIRE, 2008, Very High Fire Hazard Severity Zones in LRA, https://osfm.fire.ca.gov/media/6800/fhszl_map41.pdf, accessed March 15, 2021.

[5] CAL FIRE, 2018, Wildland-Urban Interface Fire Threat, http://www.arcgis.com/home/item.html?id=d45bf08448354073a26675776f2d09cb, accessed March 15, 2021.

[6] Professional Service Industries, Inc., 2019, *Geotechnical Engineering Report for the Proposed Hotel Indigo*.

[7] Professional Service Industries, Inc., 2019, *Phase I Environmental Site Assessment, Vacant Building, 501 Industrial Road, San Carlos, California 94070*.

maximum flexibility to allow the market to determine the mixture of non-residential uses. The project site also is mapped in the General Plan as being within a major developed area (East Side Area), designated gateway, and transportation priority area, and is identified as a landmark site, as described in the following sections.

East Side Area

The project site is located in the East Side Area of San Carlos, which the General Plan identifies as the major developed area east of the Caltrans railroad tracks. The East Side Area includes 600 acres of land. This area was originally the site of small industrial firms including manufacturing, repairing, building supply uses, service business, and housing after World War II, and transitioned to include research and development space, computer hardware and software, telecommunications, medical research, and biotechnology firms in the 1990s.[8]

Designated Gateways

The project site is located at the Holly Street east of El Camino Real Primary Gateway, which is the primary entrance point from U.S. Highway 101 into San Carlos, as designated by the San Carlos 2030 General Plan.[9] The General Plan identifies gateways as locations that announce to a visitor or resident that they are entering the city or a unique neighborhood within the city, and include primary gateways and secondary gateways. Primary gateways are the major regional entry points into the city on roadways or transportation routes, whereas secondary gateways are more local entry points into the city from nearby cities, including Belmont and Redwood City.[10] Gateways often feature landmark structures. Holly Street, adjacent to the project site, is also a City-designated scenic road, where improvements have included entryway decorative features, grade separation, and landscaping.[11]

Landmark Sites

Sites such as the project site that are designated as General Commercial/Industrial that are adjacent to Holly Street and Industrial Road are identified in the General Plan as landmark sites, which have high visibility. On landmark sites, land uses drawing from a regional market-base are encouraged.[12] Landmark sites are targeted for economic development for regional destination-oriented uses, including hotels that serve regional users and have significant beneficial results in employment growth, thus contributing to the economic sustainability of San Carlos.

[8] City of San Carlos, 2009, *San Carlos 2030 General Plan, Land Use Element*, page 57.
[9] City of San Carlos, 2009, *San Carlos 2030 General Plan, Land Use Element*, pages 60 to 62.
[10] City of San Carlos, 2009, *San Carlos 2030 General Plan, Land Use Element*, page 60.
[11] City of San Carlos, 2009, *San Carlos 2030 General Plan, Circulation & Scenic Highways Element*, page 95.
[12] City of San Carlos, 2009, *San Carlos 2030 General Plan,* Appendix B, page B-8.

3.1.4.2 ZONING DISTRICT

The project site is zoned Landmark Commercial (LC).[13] According to the San Carlos Municipal Code (SCMC) Section 18.06.010, *Purpose*, the LC district is intended to accommodate key parcels known collectively as landmark sites, which are targeted for economic development of regional retail and destination-oriented uses, including hotels, that are intended to serve regional users and contribute to the City's economic sustainability and employment growth. The LC zoning designation has a maximum building height of 50 feet and a maximum floor area ratio[14] (FAR) of 2.0 and requires a 10-foot setback on front and street side lot lines.[15] Hotels and motels are considered use classifications that are permitted in the LC district after review and approval of a minor use permit by the Zoning Administrator.[16]

3.1.5 PRIORITY DEVELOPMENT AREA/TRANSIT PRIORITY AREA

Plan Bay Area 2050 is the Bay Area's current Regional Transportation Plan/Sustainable Community Strategy that was adopted jointly by the Association of Bay Area Government's (ABAG) and Metropolitan Transportation Commission (MTC) on October 21, 2021.[17] An overarching goal of the regional *Plan Bay Area* is to concentrate development in areas where there are existing services and infrastructure rather than locating new growth in outlying areas where substantial transportation investments would be necessary to maximize energy conservation and achieve the per capita passenger vehicle, vehicle miles traveled (VMT) and associated greenhouse gas (GHG) emissions reductions.

As part of the implementing framework for *Plan Bay Area*, local governments have identified Priority Development Areas (PDAs) to focus growth. PDAs are transit-oriented, infill development opportunity areas within existing communities. Transit Priority Areas (TPAs) are defined in the California Public Resource Code as areas within one-half mile of a major transit stop. The project site is not located within a PDA.[18] The nearest PDA is the Railroad Corridor PDA, located about 850 feet west of the project site. However, the project site is located within a TPA.[19]

[13] City of San Carlos, 2021, City of San Carlos Interactive Zoning Map, https://zoning.cityofsancarlos.org/map, accessed April 5, 2021.

[14] The floor area ratio (FAR) is the ratio of the gross floor area of all buildings on a lot to the area of the lot.

[15] City of San Carlos Municipal Code, Title 18, *Zoning*, Chapter 18.06, *Commercial Districts*, Table 18.06.030, *Development Standards – Commercial District*.

[16] San Carlos Municipal Code, Title 18, *Zoning*, Chapter 18.06, *Commercial Districts*, Section 18.06.010, *Purpose*; and Section 18.06.020, *Land use regulations*.

[17] Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), October 2021, *Plan Bay Area 2050*, https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf, accessed February 9, 2022.

[18] Metropolitan Transportation Commission, 2020, Priority Development Areas (current), http://opendata.mtc.ca.gov/datasets/priority-development-areas-current, accessed March 16, 2021.

[19] Metropolitan Transportation Commission, 2019, Transit Priority Areas (2017), http://opendata.mtc.ca.gov/datasets/transit-priority-areas-2017, accessed March 16, 2021.

3.2 PROJECT OBJECTIVES

The project applicant, in coordination with the City, has developed the following project objectives to aid decision-makers in their review of the project, consideration of project alternatives, and associated environmental impacts:

- Provide a design-forward boutique hotel, one of the few on the Peninsula.
- Implement design and utilize materials in current and artful ways to celebrate the past, present, and future with a focus on technology and community.
- Reduce vehicular traffic with the project location's proximity to its customer base.
- Install landscaping to help identify the area as a Gateway to San Carlos.
- Contribute to increasing the City's tax base by providing 188 rentable hotel rooms.
- Create a desirable location for the community by providing a ground-floor restaurant and bar with outdoor patio and 4,000 sf of rentable meeting and event space that can be utilized by the community.

3.3 PROPOSED PROJECT

The proposed project would allow for the construction and operation of a hotel development on a site that is currently vacant. The proposed development, construction phasing, and employment projections are described in detail below.

3.3.1 PROPOSED DEVELOPMENT

Site plans for the proposed project are provided in Appendix B, *Project Site Plans*, of this Draft EIR.

3.3.1.1 HOTEL

The proposed hotel would consist of two connected sections: a main guestroom tower that would be six stories in height along Holly Street and facing U.S. Highway 101, and an adjoining three-story structure along Industrial Road. The hotel would be approximately 136,000 gross square feet of constructed area and approximately 119,000 square feet of gross floor area in size, and would include 188 guestrooms, a lobby, a dining area, and meeting spaces. The lobby and second-floor meeting spaces would be situated around a landscaped courtyard in the center of the site. See Figure 3-3, *Conceptual Site Plan.*

The project applicant is requesting a rezoning to the Planned Development zoning designation and a Planned Development Permit to allow certain project features, including allowance for the height to accommodate the six-story building. Building height diagrams are shown in Figure 3-4, *Building Height Diagram North and East*, and Figure 3-5, *Building Height Diagram South and West*. The highest points of the building would reach approximately 75 feet to the top of the roof parapet and approximately 82 feet to the top of the solar-ready roof awning. Because of the proximity to the San Carlos Airport, and the

proposed building height of greater than 30 feet, the proposed project requires review by the Federal Aviation Administration (FAA) in compliance with Code of Federal Regulations (CFR) Part 77, Subpart B, Section 77.9.[20] The proposed project received a determination of no hazard to air navigation on July 10, 2023 indicating the project is compliant with CFR Part 77, Subpart B, Section 77.9.[21]

3.3.1.2 LANDSCAPING AND OPEN SPACE

Landscaping would be installed throughout the project site to help to buffer the parking lot from adjacent public and private land uses. A courtyard would be located towards the center of the project site, providing outdoor space for informal gathering, outdoor dining, and casual recreation. Additionally, the applicant proposes to include a landscape element to signal the area as a Gateway in the northwestern corner of their project adjacent to the Holly Street and Industrial Road intersection. See Figure 3-6, *Landscape Plan*.

The proposed project would result in approximately 11,400 square feet of landscaped area, approximately 12.5 percent of the project site, including biofiltration planters, shrubs and groundcover, and non-irrigated landscaping. Trees would be planted around the perimeter of the project site. Landscaping would also include vines on perimeter walls around the courtyard and trash enclosure, evergreen hedges, and flowering accent plants. Landscaping would use a fully automatic irrigation system designed to meet the City's Water Efficient Landscape Ordinance, including requirements for a "smart" controller with an on-site weather sensor to adjust run times to respond to real-time weather conditions.[22] The proposed project would not include an irrigated lawn, but would include a synthetic lawn for the courtyard. Shrubs and groundcovers would be grouped according to appropriate hydrozones and would be low- or medium-water use in nature.

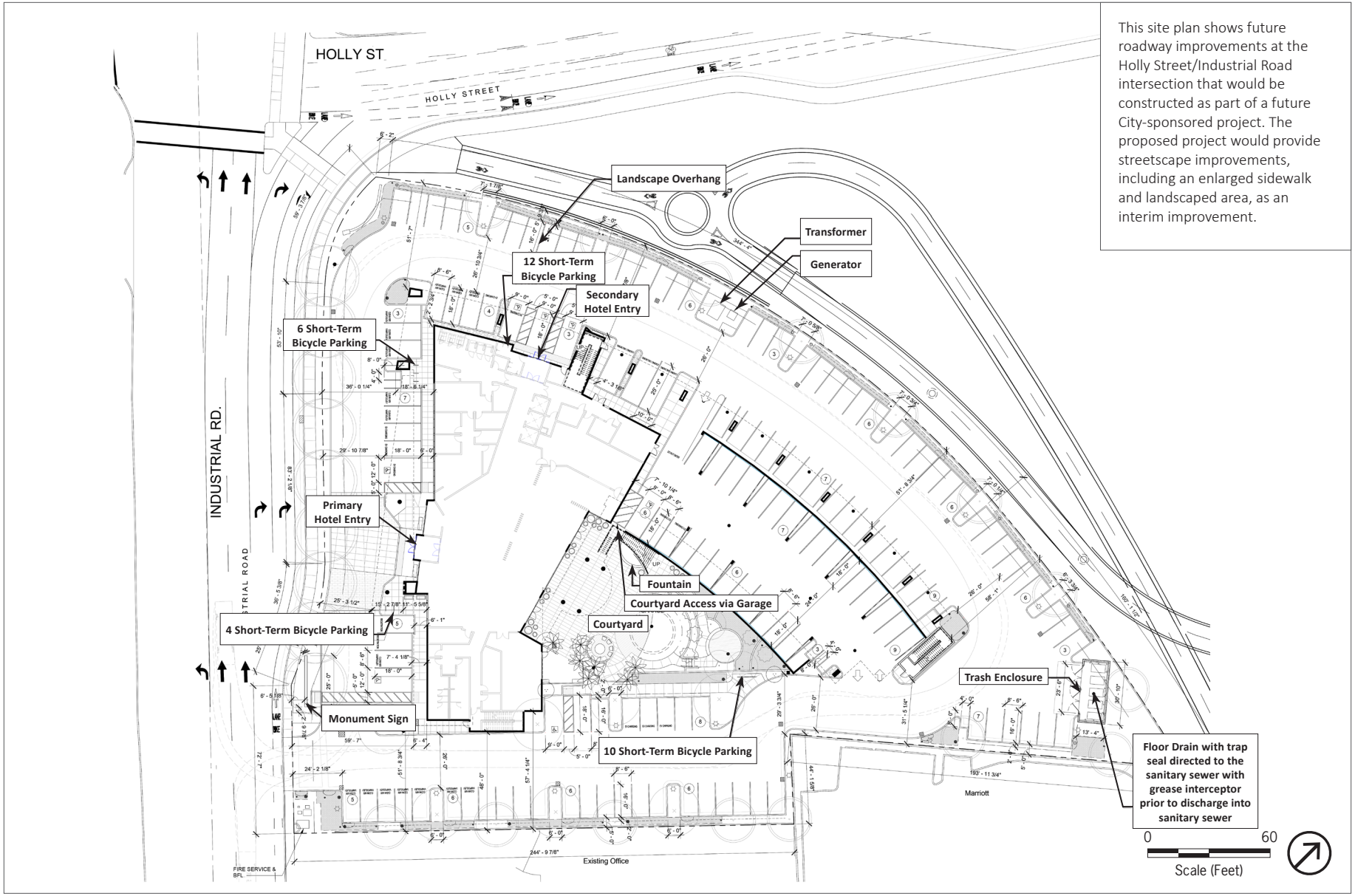
3.3.1.1 LIGHTING AND GLAZING

The source, intensity, and type of exterior lighting for the project site would generally be provided for the purpose of orienting site users and for safety needs. Fixtures would be selected to minimize effects of light pollution. All on-site lighting would be low-level illumination, downward facing, and shielded to reduce light spillover or glare. All exterior surface and above-ground mounted fixtures would be complementary to the architectural theme. Interior lighting would include varied lighting design appropriate for the different spaces and in accordance with all applicable codes and standards, including energy codes and performance standards. All exterior surface and aboveground mounted fixtures would be sympathetic and complementary to the overall architectural theme. Street lighting in sidewalks around the project site would conform to City standards.

[20] ESA Airports, 2015, *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport*, Exhibit 4-4a, *FAA Notification Form 7460-1 Filing Requirements*, page 4-33, https://ccag.ca.gov/wp-content/uploads/2015/06/Draft-Final-ALUCP-San-Carlos-Airport-062515.pdf, accessed April 5, 2021.

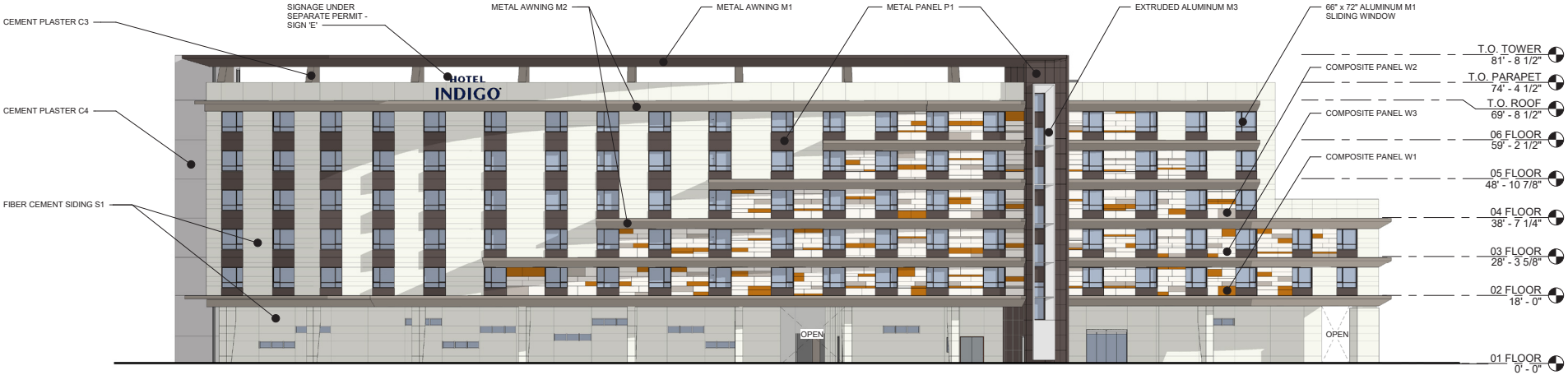
[21] The FAA determination is in contained in Appendix J, *Federal Aviation Administration Determination*, of this Draft EIR.

[22] San Carlos Municipal Code, Title 18, *Zoning*, Chapter 18.18, *Landscaping*, Section 18.18.080, *Water efficient landscaping and irrigation.*

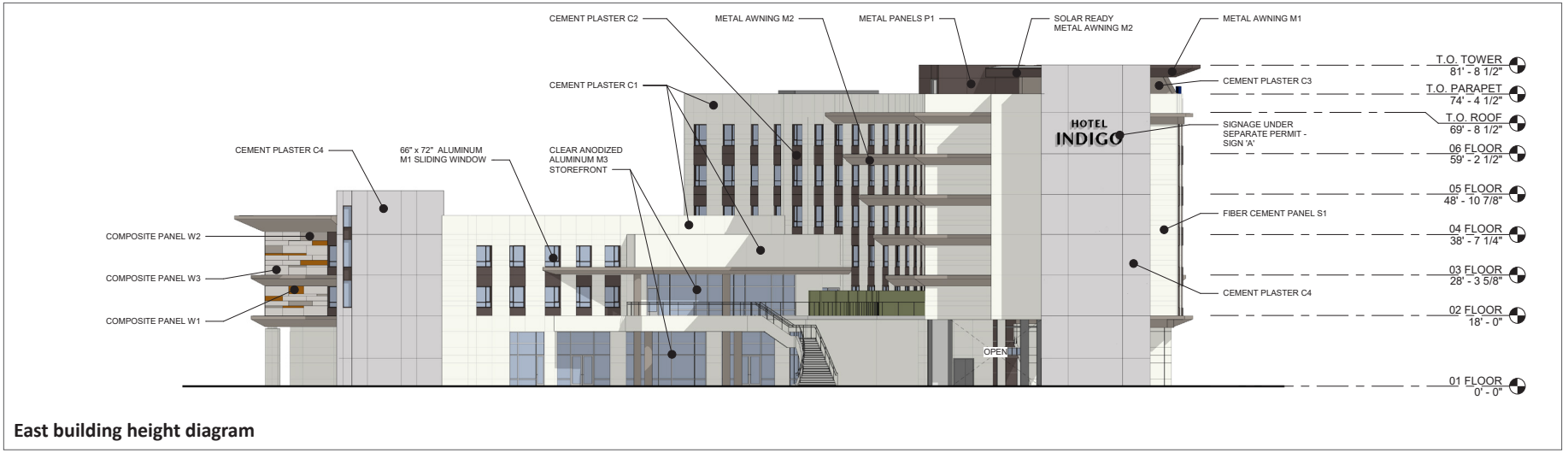


Source: RYS Archictects, 2021. PlaceWorks, 2022.

Figure 3-3
Conceptual Site Plan



North building height diagram

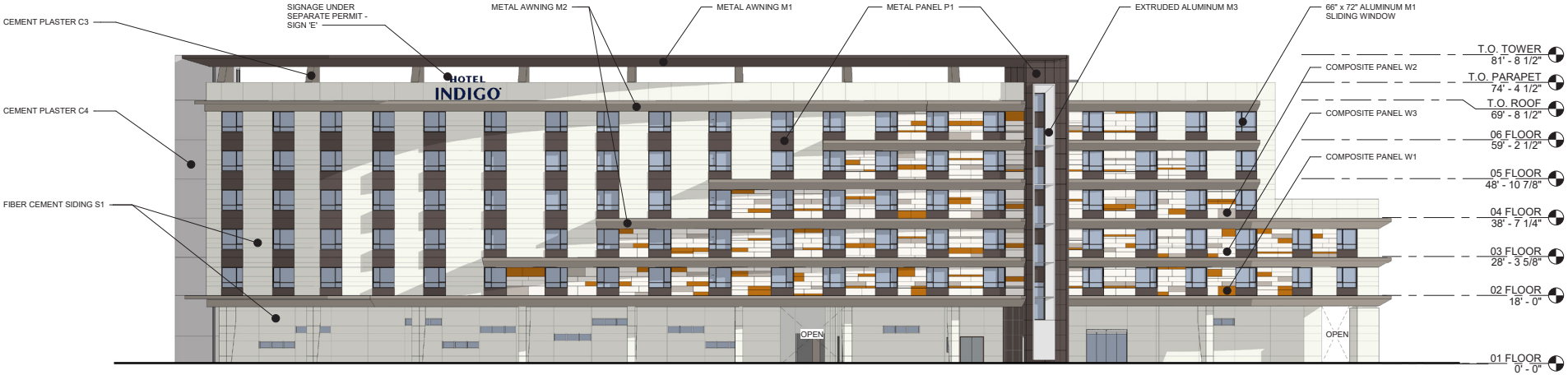


East building height diagram

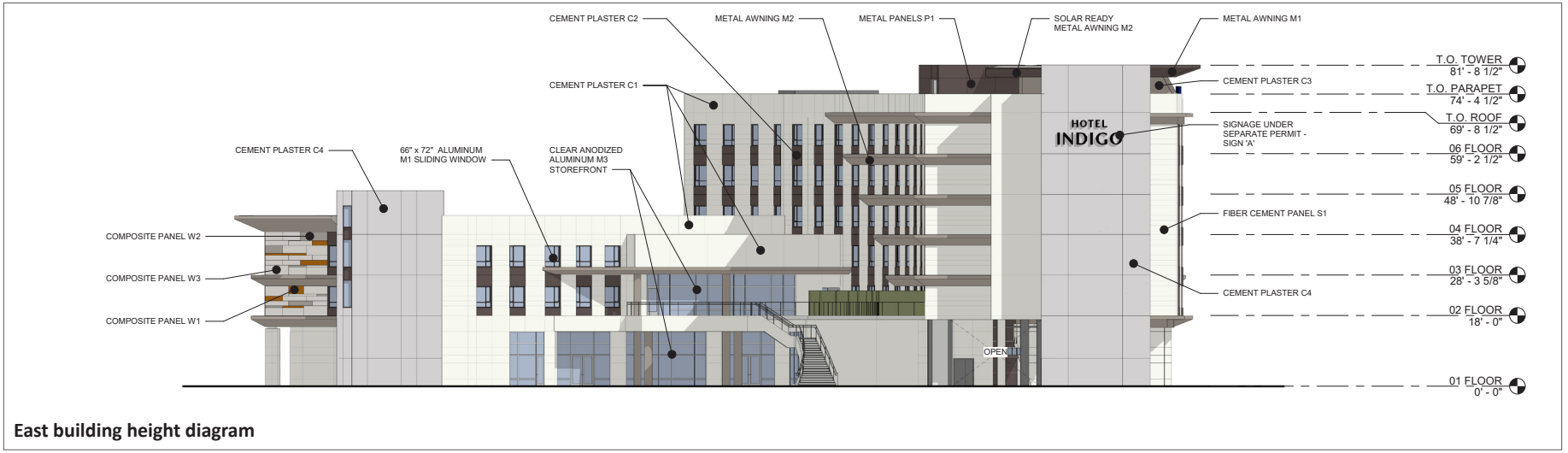
Source: RYS Archictects, 2021. PlaceWorks, 2022.

0 40
Scale (Feet)

Figure 3-4
Building Height Diagram North and East



North building height diagram



East building height diagram

Source: RYS Archictects, 2021. PlaceWorks, 2022.

0 40
Scale (Feet)

Figure 3-4
Building Height Diagram North and East

Source: RYS Archictects, 2021. KLA Landscape Architecture, Planning, 2021.

Figure 3-6
Landscape Plan

The proposed hotel would utilize low-emissivity clear glazing on the windows. Guestroom windows would all have sections of glazing that are less than 24 square feet except for the Presidential Suite facing Industrial Road. Sections of storefront glazing facing Industrial Road would include storefront framing members, reducing the largest glazing section to less than 24 square feet.

3.3.1.2 ACCESS AND CIRCULATION

The proposed project would have one access point along Industrial Road (see Figure 3-3, *Conceptual Site Plan*). Left turns out of the proposed driveway would be prohibited. The proposed project would ensure this by installing a right-turn marking at the driveway with a right-turn only sign, including traffic instruction on the website and hotel reservation confirmation email/text, and providing this instruction verbally and in printed form to hotel guests upon check-in.

Surface parking would be provided on grade along the perimeter of the project site, and garage parking would be provided on the ground level of the six-story guestroom wing. The proposed project would provide a total of 148 parking stalls comprised of 107 standard parking stalls, 8 accessible stalls including standard, van, and EV accessible stalls, 2 registration stalls, 8 electric vehicle charging stalls, 16 clean air/vanpool/electric vehicle stalls, and 7 motorcycle stalls. In addition, three loading spaces for truck deliveries would be located at the service entrance. According to SCMC Section 18.20.040, *Required parking spaces*, hotels are required to provide one parking space per room, plus two spaces adjacent to the registration office, which would require the proposed project to provide 190 parking spaces. Because the project site is located within a quarter mile of the San Carlos Commuter Caltrain Shuttle, which provides regular weekday service between the hours of 6:45 AM and 6:25 PM, the number of required parking spaces may be reduced by 20 percent in compliance with SCMC Section 18.20.050(B), *Transit Accessibility*. Additionally, in accordance with Chapter 18.25, *Transportation Demand Management*, of the SCMC, the number of required parking spaces may be reduced by 20 percent with implementation of an approved Transportation Demand Management (TDM) plan (see Section 3.2.1.5, *Transportation Demand Management*). Therefore, the proposed project would comply with the SCMC by providing 148 parking stalls (including delivery spaces). The proposed project is requesting a 22 percent parking reduction that would be approved as part of the Planned Development Permit for the project.

Accessible stalls, registration stalls, and clean air/vanpool/electric vehicle stalls would be located along Industrial Road in front of the building to facilitate guest mobility and access to the primary building entrance. Because of the need for parking close to the hotel entrance, a deviation from the parking standards for the distance from parking stalls to building face would require approval from the City.

Twenty short-term bicycle parking spaces would be located throughout the project site, including at the main building entrance and outside the main courtyard. Twelve long-term bicycle parking spaces would be located within the building.

Project plans include future roadway improvements at the Holly Street/Industrial Road intersection that would be constructed as part of a future City-sponsored project. The proposed project would provide streetscape improvements, including an enlarged sidewalk and landscaped area, as an interim improvement.

3.3.1.3 TRANSPORTATION DEMAND MANAGEMENT

The proposed project includes a transportation demand management (TDM) plan in order to reduce the amount of traffic generated by the project, promote more efficient utilization of existing transportation facilities, ensure that the potential for alternative transportation usage is maximized, and establish an ongoing monitoring and enforcement program to assess achievement of the City's desired alternative mode use percentages. TDM measures for the proposed project include planning and design measures related to the attributes of site location, site design, on-site amenities, and trip reduction programs. The trip reduction programs, including services, incentives, and actions, would encourage employees and hotel guests to commute using alternatives to single-occupant vehicles.

TDM measures for the proposed project would include the following:

- Passenger Loading Zone: A passenger loading zone near the entrance of the lobby to allow convenient passenger drop-off and pickup for transportation network company services (e.g., Lyft and Uber).
- Direct Route to Transit and Downtown: A location within walking distance to amenities in Downtown San Carlos, about 0.49 miles to the southwest via Industrial Road, and to access the San Carlos Caltrain Station, about 0.4 miles southwest of the project site.
- Pedestrian Connections: New sidewalks landscaped with street trees along the project's frontage on Industrial Road, and site circulation designed to provide safe pedestrian connections to and around the project site, including a textured drive aisle in front of the building entrance to reduce vehicle speed, and walkways between the building and sidewalk along Industrial Road.
- Bicycle Amenities: Short-term bicycle parking located near the building entrance, project driveway, and courtyard; long-term bicycle parking located in a secure bicycle storage room; and employee showers, changing rooms, and lockers.
- Alternative Commute Subsides: Free transit tickets for hotel employees; a one-time transit subsidy in the form of a transit card loaded with a one-month pass for SamTrans or Caltrain to incentivize new employees unfamiliar with the area or exploring alternative commuting options; and subsidies to employees who use transit, carpool, or bike to work, as a potential measure if the project does not meet trip reduction targets.
- Carpool and Vanpool Programs: Carpool and vanpool programs for employees, such as ride matching resources, preferential parking, and monetary incentives.
- Transportation Coordinator: A Transportation Coordinator assigned to provide information regarding alternative modes of transportation to hotel guests and employees. New employees would be provided transportation information packets, which would include information on alternative modes of transportation and TDM plan incentives.
- Guaranteed Ride Home: Reimbursement to employees who use alternative commute modes for emergency rides home.

3.3.1.4 UTILITIES AND SERVICE CONNECTIONS

Wastewater

The proposed project would connect to the existing sewer system line beneath Industrial Road. New connections and replaced sewer lines would be installed in conformance with the SCMC. The San Carlos Public Works Department provides wastewater collection and treatment service for the City of San Carlos. Sanitary wastewater generated on the project site would be treated by the Silicon Valley Clean Water regional wastewater treatment facility located in Redwood Shores. Silicon Valley Clean Water is a regional water treatment plant jointly owned by the cities of San Carlos, Belmont, and Redwood City, and the West Bay Sanitary District, for treatment and subsequent discharge into the San Francisco Bay.[23]

Water Supply

The proposed project would connect to the existing water main beneath Industrial Road. Potable water is supplied to the City of San Carlos by California Water Service. San Carlos is located within California Water Service's Mid-Peninsula District service area, which serves central San Mateo County, including the cities of San Carlos and San Mateo, and unincorporated parts of Redwood City and San Mateo County including The Highlands and Palomar Park.[24]

Stormwater Management

The proposed project would install flow-through treatment planters throughout the project site, bioretention areas, and enhanced permeable pavers. Stormwater runoff would be diverted to existing storm drainage system under Industrial Road.

The construction contractor would implement an erosion control plan to prevent excess sediment carried in stormwater during the construction phase. Control measures include piling and protecting of excess soil, controlling drainage slope towards the interior of the site; locating fiber rolls around sections of the perimeter; a stabilized construction entrance with tire washout area and sediment trapping device; and protection of stormwater drain inlets along Industrial Road and on-site.

[23] City of San Carlos, Public Works Department: Sewer, https://www.cityofsancarlos.org/government/departments/public-works/sewer, accessed March 16, 2021.

[24] Bay Area Water Supply and Conservation Agency, California Water Service – Mid-Peninsula District, https://bawsca.org/members/profiles/mid-peninsula#:~:text=Water%20is%20delivered%20to%20the,2%20and%20Sunset%20Supply%20Lines., accessed March 16, 2021.

Solid Waste

Solid waste and recyclables are collected within the city by Recology, a waste hauler contracted through the South Bayside Waste Management Authority (SBWMA).[25] A trash enclosure would be located at the northeastern corner of the project site separate from the hotel building.

Other Utility Facilities

Other utility facilities that serve the project site include electric power, natural gas, and telecommunications facilities. Electricity and natural gas are supplied to the project site via infrastructure maintained by Pacific Gas & Electric (PG&E). Cable television, telephone, and internet service would be available from a number of providers that serve the area, including AT&T and/or Comcast.

Energy and Sustainability

The proposed project would be required to meet California Code of Regulations Title 24, Part 6, 2022 California Energy Code, as well as Title 24, Part 11, which is the California Green Building Standards Code (CalGreen). The City of San Carlos has adopted the California Energy Code in Section 15.04.080, *Title 24, Part 6, California Energy Code with appendices*, of the SCMC, requiring all electric building construction, and including an exemption for non-residential buildings containing a restaurant or commercial kitchen to install gas-fueled cooking appliances, as granted by the Building Official. The proposed project would be all electric with the exception of gas cooking. Energy conserving features for operation of the proposed project would include solar panels along the rooftop sunshade; high-efficiency HVAC equipment; low-flow plumbing fixtures; thermostats with occupancy sensors to adjust heating and AC temperatures; and low VOC[26] materials. In addition, daily hotel operations would reflect sustainable practices that are becoming the norm in the hospitality industry, such as hydration stations instead of bottled water, recycle bins in guestrooms, refillable soap dispensers in guestrooms, encouragement for guests to reuse linens instead of daily replacement, and use of more natural cleaners.

3.3.2 CONSTRUCTION, DEMOLITION, AND SITE PREPARATION

Development of the proposed project would occur in one phase over an approximately 18-month period. Site preparation and grading would include import of 2,933 cubic yards of earthwork. Demolition debris, including soil from excavation, would be off hauled for disposal at an accepting landfill serving the region.

The proposed project would contribute toward the City's Holly Street/ U.S. Highway 101 Pedestrian Overpass Project through the payment of a Traffic Impact Fee. The Holly Street/ U.S. Highway 101 Pedestrian Overpass Project is currently in planning phases and would include installation of a pedestrian

[25] City of San Carlos, 2020, Garbage Rates & Rate Reduction Program, https://www.cityofsancarlos.org/government/departments/public-works/solid-waste-garbage-service/garbage-rates-rate-reduction-program, accessed March 17, 2021.

[26] VOCs are volatile organic compounds, which are gases emitted from certain solids or liquids, such as paints and varnishes, which can contribute to greenhouse gas emissions.

overpass across U.S. Highway 101 and widening Industrial Road near the project site from 80 feet to 97.75 feet to add a through lane.

3.3.3 EMPLOYEES

The proposed hotel would employ a staff of 35. It is anticipated that future employees would be drawn largely from San Carlos and other communities in the San Francisco Bay Area.

3.4 REQUIRED PERMITS AND APPROVALS

Development of the proposed project will require the following approvals and certifications:

- City certification of the EIR
- City approval of Planned Development Zoning and Planned Development Plan
- City design review and approval of Design Review per SCMC Section 18.29.070
- Conditional Use Permit for location of parking
- Grading and Dirt Haul Certificate
- City review and approval of Transportation Demand Management Plan (TDM) per SCMC Section 18.25.050
- City Issuance of grading and dirt haul, encroachment permits, and building certificates
- Airport Land Use Commission determination of consistency for the Zoning and Planned Development Plan
- FAA approval for building height within the vicinity of the San Carlos Airport per FAA Form 7460-1 and Code of Federal Regulations Part 77, Subpart B, Section 77.9

"Responsible agencies" are all public agencies other than the lead agency with discretionary approval power over the project. The FAA is considered to be a responsible agency for the proposed project. In addition, the City/County Association of Governments of San Mateo County Board shall be given the opportunity to review the plans for the proposed project.

4. Environmental Analysis

CHAPTER ORGANIZATION

This chapter of the Draft Environmental Impact Report (EIR) is made up of 13 sub-chapters. This chapter describes the format of this Draft EIR and the methodology of the cumulative impact analysis. The 13 sub-chapters evaluate the direct, indirect, and cumulative environmental impacts of the proposed project. The potential environmental effects of the proposed project are analyzed for the following environmental issue areas:

- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

FORMAT OF THE ENVIRONMENTAL ANALYSIS

Each sub-chapter is organized into the following sections:

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

would mitigate impacts with potentially significant or significant impact. Impacts and mitigation measures are numbered consecutively within each topical analysis and begin with an acronymic or abbreviated reference to the impact section. The following symbols are used for individual topics below. This subsection also includes a discussion of cumulative impacts of the proposed project.

- AQ – Air Quality
- BIO – Biological Resources
- CULT – Cultural Resources
- ENE – Energy
- GEO – Geology, Seismicity, and Soils
- GHG – Greenhouse Gas Emissions and Sustainability
- HAZ – Hazards and Hazardous Materials
- HYD – Hydrology and Water Quality
- LU – Land Use and Planning
- NOI – Noise
- TRAN – Transportation
- TCR – Tribal Cultural Resources
- UTIL – Utilities and Service Systems

LEVEL OF SIGNIFICANCE

As noted above, the 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 (S)* impacts include a description of the circumstances where an established or defined threshold would be exceeded.
- *Less-than-significant (LTS)* impacts include effects that are noticeable, but do not exceed established or defined thresholds, or are mitigated below such thresholds.
- *No impact* describes the circumstances where there is no adverse effect on the environment.

For each impact identified as being significant, the EIR identifies mitigation measures to reduce, eliminate, or avoid the adverse effect. If the mitigation measures would reduce the impact to a less-than-significant level successfully, this is stated in the EIR. However, *significant and unavoidable* (SU) impacts are described where mitigation measures would not diminish these effects to less-than-significant levels.

CUMULATIVE IMPACT ANALYSIS

GEOGRAPHIC AREA FOR CUMULATIVE ANALYSIS

The cumulative impact discussions in Chapters 4.1 through 4.13 explain the geographic scope of the area affected by each cumulative effect (e.g., immediate plan vicinity, city, county, watershed, or air basin). The geographic area considered for each cumulative impact depends upon the impact that is being analyzed. For example, in assessing macro-scale air quality impacts, all development within the San Francisco Bay

Area Air Basin contributes to regional emissions of criteria pollutants, and basin-wide projections of emissions is the best tool for determining the cumulative effect.

CUMULATIVE PROJECTS CONSIDERED

The CEQA Guidelines Section 15130 outlines two approaches to analyzing cumulative impacts. The first is the "list approach," which requires a listing of past, present and reasonably anticipated future projects producing related or cumulative impacts. The second is the projections-based approach wherein the relevant growth projections contained in an adopted General Plan or related planning document designed to evaluate regional or area-wide conditions are summarized. A reasonable combination of the two approaches may also be used.

Impacts are estimated using a combination of two methods:

- Related projects: nine projects that had been approved and under review by the City of San Carlos.
- Buildout projections based on City of San Carlos 2030 General Plan (2009).

The nine related projects combined (see Table 4-1, *Cumulative Development Projects*) would involve a development net increase of 2,220,624 square feet of office/research and development use.

TABLE 4-1 CUMULATIVE DEVELOPMENT PROJECTS

Project Name	Distance from Project Site	Existing Square Feet	Existing Use	Proposed Gross Square Feet	Proposed Use	New Net Square Feet
405 Industrial Road (Menlo Equities)	0.15 mi	16,445	Public Storage	205,273	Life Science	188,828
777 Industrial Road (Presidio)	0.35 mi	44,000	Car sales/ repair	120,000	Life Science	76,000
888 Bransten Road	0.39 mi	57,068	Commercial	105,000	Life Science	47,932
987 Commercial Street (Alexandria)	0.55 mi	610,907	Commercial/ Industrial	1,620,774	Life Science	1,009,867
1091 Industrial Road	0.66 mi	40,067	Commercial/ Industrial	138,710	Life Science	98,643
1030 Brittan Avenue (MBC Bio Labs)	0.70 mi	0	Vacant (parking)	96,17	Life Science	96,175
642 Quarry Road	0.75 mi	80,038	Industrial	409,810	Life Science	329,772
1021 Howard Avenue	0.95 mi	44,812	Commercial/ Industrial	190,869	Life Science	146,057
800 Old County Road (Sobrato)	1.41 mi	29,723	Commercial	325,473	Life Science	295,750

Source: City of San Carlos, 2022.

The following provides a summary of the cumulative impact setting for each impact area:

- Air Quality: The proposed project's potential contribution to cumulative impacts is assessed using the same significance criteria as those for project-specific impacts. Individual development projects that generate construction or operational emissions that exceed the Air District's screening thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the San Francisco Bay Area Basin is in nonattainment.

- Biological Resources: The cumulative setting for biological resource impacts includes the effects of the proposed project together with cumulative development projects in the vicinity of the project site.
- Cultural and Tribal Cultural Resources: Cumulative impacts to cultural or tribal cultural resources could occur when development at the project site, combined with impacts from projected growth in the surrounding region, lead to the loss of a substantial type of site, building, or resource, or adverse effects on local Native American tribes or tribal lands.
- Energy: The area considered for cumulative impacts to energy consumption is the service area of Peninsula Clean Energy and Pacific Gas & Electric.
- Geology and Soils: Potential cumulative geological impacts could arise from a combination of development at the project site with future growth in the immediate vicinity of the project site.
- Greenhouse Gas Emissions: Because GHG emissions are not confined to a particular air basin but are dispersed worldwide, the cumulative analysis focuses on the global impacts and thus is cumulative by nature.
- Hazards and Hazardous Materials: The cumulative setting for impacts related to hazards and hazardous materials includes the proposed project together with other cumulative development projects in the vicinity of the project site.
- Hydrology and Water Quality: The geographic context used for the cumulative assessment of hydrology and water quality impacts includes the areas within the City of San Carlos that discharge stormwater to Belmont Creek, Brittan Creek, Cordilleras Creek, and Pulgas Creek which drains into the Francisco Bay.
- Land Use and Planning: The cumulative setting for land use and planning considers the effects of the proposed project together with the cumulative development projects in the vicinity of the project site.
- Noise: The cumulative setting for noise impacts includes the effects of the proposed project together with the cumulative development projects in the vicinity of the project site.
- Transportation: A cumulative analysis of vehicle miles traveled is not required for CEQA pursuant to California Office of Planning and Research's 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA. The cumulative transportation analysis therefore focuses on other transportation topics, including transportation demand management, pedestrian facilities, bicycle facilities, transit services, sight distance, emergency vehicle access, when considered along with cumulative development projects.
- Utilities and Service Systems: Cumulative impacts are considered in the context of the growth from the proposed project combined with the estimated growth in each utility's service area.

4.1 AIR QUALITY

This chapter describes the existing air quality setting and evaluates the potential environmental impacts that could occur by developing the proposed project. This chapter is based on the methodology recommended by the Bay Area Air Quality Management District (Air District) for project-level review. The analysis focuses on air pollution from regional emissions and localized pollutant concentrations from buildout of the proposed project.

Construction criteria air pollutant emissions modeling data, as well as the health risk assessment (HRA) prepared for the proposed project, are in Appendix C, *Air Quality and Greenhouse Gas Modeling*, of this Draft Environmental Impact Report (EIR).

"Emissions" refers to the actual quantity of pollutants, measured in pounds per day or tons per year. "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 ($\mu g/m^3$).

4.1.1 ENVIRONMENTAL SETTING

4.1.1.1 AIR POLLUTANTS OF CONCERN

Criteria Air Pollutants

Pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and State law under the federal Clean Air Act and California Clean Air Act, respectively. 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), reactive organic gases (ROG), nitrogen oxides (NO_x), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that ambient air quality standards (AAQS) have been established for them. ROG and NO_x are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary pollutants. Table 4.1-1, *Criteria Air Pollutant Health Effects Summary*, summarizes the potential health effects associated with the criteria air pollutants.

TABLE 4.1-1 CRITERIA AIR POLLUTANT HEALTH EFFECTS SUMMARY

Pollutant	Health Effects	Examples of Sources
Carbon Monoxide (CO)	▪ Chest pain in heart patients ▪ Headaches, nausea ▪ Reduced mental alertness ▪ Death at very high levels	▪ Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Ozone (O_3)	▪ Cough, chest tightness ▪ Difficulty taking a deep breath ▪ Worsened asthma symptoms ▪ Lung inflammation	▪ Atmospheric reaction of organic gases with nitrogen oxides in sunlight
Nitrogen Dioxide (NO_2)	▪ Increased response to allergens ▪ Aggravation of respiratory illness	▪ Same as carbon monoxide sources
Particulate Matter (PM_{10} & $PM_{2.5}$)	▪ Hospitalizations for worsened heart diseases ▪ Emergency room visits for asthma ▪ Premature death	▪ Cars and trucks (particularly diesels) ▪ Fireplaces and woodstoves ▪ Windblown dust from overlays, agriculture, and construction
Sulfur Dioxide (SO_2)	▪ Aggravation of respiratory disease (e.g., asthma and emphysema) ▪ Reduced lung function	▪ Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, and industrial processes
Lead (Pb)	▪ Behavioral and learning disabilities in children ▪ Nervous system impairment	▪ Contaminated soil

Sources: California Air Resources Board, 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.

- 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. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces its oxygen-carrying capacity. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia, as well as for fetuses. Even healthy people exposed to high CO concentrations can experience headaches, dizziness, fatigue, unconsciousness, and even death.[1]
- Reactive Organic Gases (ROGs) are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are

[1] Bay Area Air Quality Management District. 2023, April, 2022 California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines accessed July 17, 2023.

not caused directly by ROGs, but rather by reactions of ROGs to form secondary pollutants such as O_3. There are no AAQS established for ROGs. However, because they contribute to the formation of O_3, the Air District 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 O_3, PM_{10}, and $PM_{2.5}$. The two major components of NO_x are nitric oxide (NO) and NO_2. The principal component of NO_x produced by combustion is NO, but NO reacts with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure.[5] NO_2 acts as an acute irritant and in equal concentrations is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (2 and 3 years old) has also been observed at concentrations below 0.3 parts per million (ppm).[5]
- Sulfur Dioxide (SO_2) 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 SO_2. When SO_2 forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_x). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue.[2]
- Suspended Particulate Matter (PM_{10} and $PM_{2.5}$) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. In the San Francisco Bay Area Air Basin (SFBAAB or Air Basin), most particulate matter is caused by combustion, factories, construction, grading, demolition, agricultural activities, and motor vehicles. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include the 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 or less (i.e., 2.5 millionths of a meter or 0.0001 inch). Diesel particulate matter (DPM) is also classified a carcinogen.

  Extended exposure to particulate matter can increase the risk of chronic respiratory disease. PM_{10} bypasses the body's natural filtration system more easily than larger particles and can lodge deep in the lungs. The United States Environmental Protection Agency (USEPA) scientific review concluded that $PM_{2.5}$ penetrates even more deeply into the lungs, and this is more likely to contribute to health effects—at concentrations well below current PM_{10} 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). Motor vehicles are currently responsible for about half of

[2] Bay Area Air Quality Management District. 2023, April, 2022 California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines accessed July 17, 2023.

particulates in the SFBAAB. Wood burning in fireplaces and stoves is another large source of fine particulates.[7]

- **Ozone (O_3)** is commonly referred to as "smog" and is a gas that is formed when ROGs and NO_x, both by-products of internal combustion engine exhaust, undergo photochemical reactions in the presence of sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions to the formation of this pollutant. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. O_3 levels usually build up during the day and peak in the afternoon hours. Short-term exposure can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, it can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Chronic exposure to high ozone levels can permanently damage lung tissue. O_3 can also damage plants and trees and materials such as rubber and fabrics.[3]
- **Reactive Organic Gases (ROGs)/ Volatile Organic Compounds (VOCs)** are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROGs, but rather by reactions of ROGs to form secondary pollutants such as O_3. There are no AAQS established for ROGs. However, because they contribute to the formation of O_3, the Air District has established a significance threshold for this pollutant.
- **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 phasing out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers. Because emissions of lead are found only in projects that are permitted by the Air District, lead is not an air quality of concern for the proposed project.

Toxic Air Contaminants

The public's exposure to air pollutants classified as toxic air contaminants (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 (HAP) pursuant to Section 112(b) of the federal Clean Air Act (42 United States Code Section7412[b]) is a toxic air contaminant. Under State law, the California Environmental Protection Agency (CalEPA), acting through CARB, is authorized to identify a substance as a TAC if it determines that the substance is an air pollutant that may cause or contribute to

[3] Bay Area Air Quality Management District. 2023, April, 2022 California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines accessed July 17, 2023.

an increase in mortality or to an increase in serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (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 forth 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, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, toxic air contaminant 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 in the form of notices and public meetings.

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs.[4] Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

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. According to the Air District, PM emitted from diesel engines contributes to more than 85 percent of the cancer risk within the SFBAAB and cancer risk from TACs is highest near major diesel PM sources.[5]

4.1.1.2 REGULATORY FRAMEWORK

Federal, State, and local air districts have passed laws and regulations intended to control and enhance air quality. Land use in the city is subject to the rules and regulations imposed by the USEPA, CARB, CalEPA, and the Air District. Federal, State, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

[4] California Air Resources Board. 1999. Final Staff Report: Update to the Toxic Contaminant List.

[5] Bay Area Air Quality Management District, 2014, Improving Air Quality & Health in Bay Area Communities, Community Air Risk Evaluation Program Retrospective & Path Forward (2004-2013).

Federal and State Regulations

Ambient air quality standards 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 San Carlos is in the SFBAAB and is subject to the rules and regulations imposed by the Air District, the national AAQS adopted by the USEPA, and the California AAQS adopted by CARB.

Ambient Air Quality Standards

The federal Clean Air Act (CAA) was passed in 1963 by the United States Congress and has been amended several times. The 1970 federal Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting national AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act, 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 persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 4.1-2, *Ambient Air Quality Standards for Criteria Pollutants*. These pollutants are ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), 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.

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

- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations (CCR): Applicant Energy Efficiency Standards
- Title 24, Part 6, CCR: Building Energy Efficiency Standards
- Title 24, Part 11, CCR: Green Building Standards Code

TABLE 4.1-2 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 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	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 Coarse Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 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 µg/m^3	150 µg/m^3	
Respirable Fine Particulate Matter ($PM_{2.5}$)[d]	Annual Arithmetic Mean	12 µg/m^3	12 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 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 Quarter	*	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 =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.

TABLE 4.1-2 AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS

Pollutant	Averaging Time	California Standard[a]	Federal Primary Standard[b]	Major Pollutant Sources
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hours	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; $\mu g/m^3$; 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}, $PM_{2.5}$, 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 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

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

d. On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM_{10} standards (primary and secondary) of 150 $\mu g/m^3$ 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 primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

Source: California Air Resources Board, 2016, Ambient Air Quality Standards, https://ww2.arb.ca.gov/resources/documents/ambient-air-quality-standards-0, accessed November 21, 2022.

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 Clean Air Act (42 United States Code Section 7412[b]) is a toxic air contaminant.

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*
- 13 CCR Chapter 10, Section 2480, *Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools*
- 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*

Idling Restrictions

Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9 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. The airborne toxic control measure helps reduce public exposure to oxides of nitrogen (NOx), diesel particulate matter (PM), and other criteria pollutant emissions from off-road diesel-fueled vehicles.

Regional Regulations

Bay Area Air Quality Management District

The Air District is the agency responsible for ensuring that the national and California AAQS are attained and maintained in the SFBAAB. Air quality conditions in the SFBAAB have improved significantly since the Air District was created in 1955. The Air District prepares air quality management plans (AQMP) to attain ambient air quality standards in the SFBAAB. The Air District prepares ozone attainment plans for the national O3 standard and clean air plans for the California O_3 standard. The Air District prepares these air quality management plans in coordination with Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) to ensure consistent assumptions about regional growth.

Bay Area Air Quality Management District 2017 Clean Air Plan

The Air District adopted the 2017 "Clean Air Plan: Spare the Air, Cool the Climate" (2017 Clean Air Plan) on April 19, 2017, making it the most recently adopted comprehensive plan. The 2017 Clean Air Plan incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2017

Clean Air Plan serves as an update to the adopted Bay Area 2010 Clean Air Plan and continues to provide the framework for SFBAAB to achieve attainment of the California and national AAQS. The 2017 Clean Air Plan updates the Bay Area's ozone plan, which is based on the "all feasible measures" approach to meet the requirements of the California Clean Air Act. It sets a goal of reducing health risk impacts to local communities by 20 percent between 2015 and 2020 and lays the groundwork for reducing GHG emissions in the Bay Area to meet the State's 2030 GHG reduction target and 2050 GHG reduction goal. It also includes a vision for the Bay Area in a post-carbon year 2050 that encompasses the following:

- Construct buildings that are energy efficient and powered by renewable energy.
- Walk, bicycle, and use public transit for the majority of trips and use electric-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.
- Live a low-carbon lifestyle by purchasing low-carbon foods and goods in addition to recycling and putting organic waste to productive use.

The 2017 Clean Air Plan includes a comprehensive multipollutant control strategy to be implemented in the next three to five years to address public health and climate change and to set a pathway to achieve the 2050 vision. The control strategy includes 85 control measures to reduce emissions of ozone, particulate matter, TACs, and GHG from a full range of emission sources. These control measures cover the following sectors: (1) stationary (industrial) sources, (2) transportation, (3) energy, (4) agriculture, (5) natural and working lands, (6) waste management, (7) water, (8) super-GHG pollutants, and (9) buildings. The proposed control strategy is based on the following key priorities:

- Reduce emissions of criteria air pollutants and toxic air contaminants from all key sources.
- Reduce emissions of "super-GHGs" such as methane, black carbon, and fluorinated gases.
- Decrease demand for fossil fuels (gasoline, diesel, and natural gas).
- Increase efficiency of the energy and transportation systems.
  - Reduce demand for vehicle travel, and high-carbon goods and services.
- Decarbonize the energy system.
  - Make the electricity supply carbon-free.
  - Electrify the transportation and building sectors.[6]

Community Air Risk Evaluation Program

The Air District Community Air Risk Evaluation program was initiated in 2004 to evaluate and reduce health risks associated with exposure to outdoor TACs in the Bay Area, primarily DPM. The last update to this program was in 2014. Based on findings of the latest report, DPM was found to account for approximately 85 percent of the cancer risk from airborne toxics. Carcinogenic compounds from gasoline-powered cars and light duty trucks were also identified as significant contributors: 1,3-butadiene contributed 4 percent of the cancer risk-weighted emissions, and benzene contributed 3 percent. Collectively, five compounds—DPM, 1,3-butadiene, benzene, formaldehyde, and acetaldehyde—were

[6] Bay Area Air Quality Management District, 2017, Final 2017 Clean Air Plan, Spare the Air, Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area, https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en, accessed October 26, 2022.

found to be responsible for more than 90 percent of the cancer risk attributed to emissions. All of these compounds are associated with emissions from internal combustion engines. The most important sources of cancer risk-weighted emissions were combustion-related sources of DPM, including on-road mobile sources (31 percent), construction equipment (29 percent), and ships and harbor craft (13 percent). Overall, cancer risk from TAC dropped by more than 50 percent between 2005 and 2015, when emissions inputs accounted for State diesel regulations and other reductions.

The major contributor to acute and chronic non-cancer health effects in the Air Basin is acrolein (C_3H_4O). Major sources of acrolein are on-road mobile sources and aircraft near freeways and commercial and military airports. Currently CARB does not have certified emission factors or an analytical test method for acrolein. Since the appropriate tools needed to implement and enforce acrolein emission limits are not available, the Air District does not conduct health risk screening analysis for acrolein emissions.

Air District Rules and Regulations

Regulation 7, Odorous Substances

Sources of objectionable odors may occur within the city. The Air District's Regulation 7, Odorous Substances, places general limitations on odorous substances and specific emission limitations on certain odorous compounds. Odors are also regulated under the Air District Regulation 1, Rule 1-301, Public Nuisance, which states that "no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause, injury or damage to business or property." Under the Air District's Rule 1-301, a facility that receives three or more violation notices within a 30-day period can be declared a public nuisance.

Other Air District Regulations

In addition to the plans and programs described above, the Air District administers a number of specific regulations on various sources of pollutant emissions that would apply to the proposed project:

- Regulation 2, Rule 2, Permits, New Source Review
- Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants
- Regulation 6, Rule 1, General Requirements
- Regulation 8, Rule 3, Architectural Coatings
- Regulation 8, Rule 4, General Solvent and Surface Coatings Operations
- Regulation 11, Rule 2, Asbestos, Demolition, Renovation and Manufacturing

Local Regulations

City/County Association of Governments of San Mateo (C/CAG)

The City/County Association of Governments of San Mateo (C/CAG) is the designated congestion management agency for the county. C/CAG's congestion management plan (CMP) identifies strategies to respond to future transportation needs, identifies procedures to alleviate and control congestion, and

promotes countywide solutions.[7] Pursuant to the USEPA's transportation conformity regulations and the Bay Area Conformity State Implementation Plan (also known as the Bay Area Air Quality Conformity Protocol), the CMP is required to be consistent with the MTC planning process, including regional goals, policies, and projects for the regional transportation improvement program. MTC cannot approve any transportation plan, program, or project unless these activities conform to the State Implementation Plan.

Plan Bay Area 2050

MTC and ABAG adopted Plan Bay Area 2050 on October 21, 2021.[8] Plan Bay Area provides transportation and environmental strategies to continue to meet the regional transportation-related GHG reduction goals of Senate Bill 375. Strategies to reduce GHG emissions include focusing housing and commercial construction in walkable, transit-accessible places; investing in transit and active transportation; and shifting the location of jobs to encourage shorter commutes. To achieve MTC's/ABAG's sustainable vision for the Bay Area, the Plan Bay Area land use concept plan for the region concentrates the majority of new population and employment growth in the region in Priority Development Areas (PDAs). PDAs are transit-oriented, infill development opportunity areas within existing communities. An overarching goal of the regional plan is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle, vehicle miles traveled, and associated GHG emissions reductions.

San Carlos 2030 General Plan

Table 4.1-3, *City of San Carlos 2030 General Plan Policies Relevant to Air Quality*, shows the relevant policies related to air quality.

TABLE 4.1-3 CITY OF SAN CARLOS GENERAL PLAN POLICIES RELEVANT TO AIR QUALITY

Policy Number	Policy Text
Land Use Element	
Policy LU-9.4	Mitigation measures shall be utilized to the greatest extent feasible for neighborhoods surrounding new proposed development.
Circulation & Scenic Highways Element	
Policy CSH-2.3	Access to public transportation facilities should be convenient and designed to encourage use of public transit.
Policy CSH-3.1	Strive to reduce base-line and development-related traffic by 20 percent through public-private partnership efforts
Policy CSH-3.2	Support city-wide efforts to reduce vehicular trips within and through the community.
Policy CSH-3.3	Support the incorporation of Transportation Demand Measures in new development to reduce traffic impacts.

[7] City/Council Association of Governments of San Mateo County, 2021, *Congestion Management Program*. https://ccag.ca.gov/wp-content/uploads/2022/01/258-018-San-Mateo-CMP-Report_Final.pdf, accessed on October 26, 2022.

[8] Association of Bay Area Governments and the Metropolitan Transportation Commission, 2021, *Plan Bay Area 2050*. https://www.planbayarea.org/sites/default/files/documents/2021-05/Draft_Plan_Bay_Area_2050_May2021_0.pdf, accessed on October 26, 2022.

TABLE 4.1-3 CITY OF SAN CARLOS GENERAL PLAN POLICIES RELEVANT TO AIR QUALITY

Policy Number	Policy Text
Policy CSH-3.4	Support Smart Growth and Sustainability principles to reduce travel time from housing to jobs, provide affordable transportation to all members of the community, allow compact mixed-use development and decrease dependency on automobiles.
Policy CSH-3.10	The City shall support efforts for a coordinated ttransportation system and maintaining acceptable levels of traffic with local, regional and Caltrans agencies.
Environmental Management Element	
Policy EM-6.1	Support and comply with the Bay Area Air Quality Management District, State and federal standards and policies that improve air quality in the Bay Area.
Policy EM-6.2	Support and encourage commercial uses to adopt environmentally friendly technologies and reduce the release of pollutants.
Policy EM-6.3	Support the reduction of emissions of particulates from wood burning appliances, construction activity, automobiles, trucks and other sources.
Policy EM-6.4	Implement Bay Area Air Quality Management District (BAAQMD) guidelines that establish minimum screening or buffer distances between emissions sources and sensitive receptors. Exceptions may be made for projects that do not meet the distance requirements, but can be determined compatible with adjacent uses through a project-specific study that determines potential health risk. Mitigation measures shall be required to reduce these risks to acceptable levels.
Policy EM-6.5	Consider potential impacts from land uses that may emit pollution and/or odors when locating air pollution sources near sensitive receptors. Air pollution sources could include freeways, industrial uses, hazardous materials storage, waste disposal/transfer stations and other similar uses.
Policy EM-6.6	BAAQMD recommended measures to reduce PM10 and exhaust emissions associated with construction shall be applied to new development in San Carlos.
Parks and Recreation Element	
Policy PR-4.5	Consider transit, bicycle and pedestrian accessibility when evaluating locations for new or substantially renovated parks facilities.
Policy PR-4.11	Maintain or plant trees where appropriate to provide shade, absorb carbon, reduce the heat island effect and reduce cooling loads in shaded buildings.
Policy PR-4.12	Study the feasibility of reducing or eliminating City department use of gasoline-powered landscape maintenance equipment.

Source: City of San Carlos, 2009, San Carlos 2030 General Plan.

4.1.1.3 EXISTING CONDITIONS

San Francisco Bay Area Air Basin Conditions

California is divided geographically into air basins for the purpose of managing the air resources of the State on a regional basis. An air basin generally has similar meteorological and geographic conditions throughout. The State is divided into 15 air basins. The City of San Carlos is in the SFBAAB. The discussion below identifies the natural factors in the Air Basin that affect air pollution. Air pollutants of concern are criteria air pollutants and TACs. Federal, State, and local air districts have adopted laws and regulations intended to control and improve air quality. The regulatory framework that is potentially applicable to the proposed project is also summarized below.

The Air District is the regional air quality agency for the SFBAAB, which comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties; the southern portion of Sonoma

County; and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions.[9]

Meteorology

The SFBAAB is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. The Coast Range[10] splits in the Bay Area, creating a western coast gap, the Golden Gate, and an eastern coast gap, the Carquinez Strait, which allows air to flow in and out of the Bay Area and the Central Valley. The climate is dominated by the strength and location of a semi-permanent, subtropical high-pressure cell. During the summer, the Pacific high-pressure cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below the surface because of the northwesterly flow produces a band of cold water off the California coast. The cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold-water band, resulting in condensation and the presence of fog and stratus clouds along the Northern California coast. In the winter, the Pacific high-pressure cell weakens and shifts southward, resulting in wind flow offshore, the absence of upwelling, and the occurrence of storms. Weak inversions coupled with moderate winds result in a low air pollution potential.

Wind Patterns

During the summer, winds flowing from the northwest are drawn inland through the Golden Gate and over the lower portions of the San Francisco Peninsula. Immediately south of Mount Tamalpais in Marin County, the northwesterly winds accelerate considerably and come more directly from the west as they stream through the Golden Gate. This channeling of wind through the Golden Gate produces a jet that sweeps eastward and splits off to the northwest toward Richmond and to the southwest toward San José when it meets the East Bay hills. Wind speeds may be strong locally in areas where air is channeled through a narrow opening, such as the Carquinez Strait, the Golden Gate, or the San Bruno gap.

The air flowing in from the coast to the Central Valley, called the sea breeze, begins developing at or near ground level along the coast in late morning or early afternoon and the sea breeze deepens and increases in velocity while spreading inland. Under normal atmospheric conditions, the air in the lower atmosphere is warmer than the air above it. In the winter, the SFBAAB frequently experiences stormy conditions with moderate to strong winds, as well as periods of stagnation with very light winds. Winter stagnation episodes (i.e., conditions where there is little mixing, which occurs when there is a lack of or little wind) are characterized by nighttime drainage flows in coastal valleys. Drainage is a reversal of the usual daytime air-flow patterns; air moves from the Central Valley toward the coast and back down toward the Bay from the smaller valleys within the SFBAAB.

[9] This section describing the Air Basin is from Bay Area Air Quality Management District, 2010 (Revised 2011), Appendix C: Sample Air Quality Setting, in *California Environmental Quality Act Air Quality Guidelines*.

[10] The Coast Range traverses California's west coast from Humboldt County to Santa Barbara County.

Temperature

Summertime temperatures in the Air Basin are determined in large part by the effect of differential heating between land and water surfaces. Because land tends to heat up and cool off more quickly than water, a large-scale gradient (differential) in temperature is often created between the coast and the Central Valley, and small-scale local gradients are often produced along the shorelines of the ocean and bays. The temperature gradient near the ocean is also exaggerated, especially in summer, because of the upwelling of cold water from the ocean bottom along the coast. On summer afternoons, the temperatures at the coast can be 35 degrees Fahrenheit (°F) cooler than temperatures 15 to 20 miles inland; at night, this contrast usually decreases to less than 10°F. In the winter, the relationship of minimum and maximum temperatures is reversed. During the daytime the temperature contrast between the coast and inland areas is small, whereas at night the variation in temperature is large. The average low is reported at 57.2°F in January while the average high is 73.2°F in September.[11]

Precipitation

The Air Basin is characterized by moderately wet winters and dry summers. Winter rains (November through March) account for about 75 percent of the average annual rainfall. The amount of annual precipitation can vary greatly from one part of the Air Basin to another, even within short distances. In general, total annual rainfall can reach 40 inches in the mountains, but it is often less than 16 inches in sheltered valleys.

During rainy periods, ventilation (rapid horizontal movement of air and injection of cleaner air) and vertical mixing (an upward and downward movement of air) are usually high, and thus pollution levels tend to be low (i.e., air pollutants are dispersed more readily into the atmosphere rather than accumulate under stagnant conditions). However, during the winter, frequent dry periods do occur, where mixing and ventilation are low and pollutant levels build up. Rainfall averages 27.07 inches per year in the project site area.[12]

Wind Circulation

Low wind speed contributes to the buildup of air pollution because it allows more pollutants to be emitted into the air mass per unit of time. Light winds occur most frequently during periods of low sun (fall and winter, and early morning) and at night. These are also periods when air pollutant emissions from some sources are at their peak, namely, commuter traffic (early morning) and wood-burning appliances (nighttime). The problem can be compounded in valleys, when weak flows carry the pollutants up-valley during the day, and cold air drainage flows move the air mass down-valley at night. Such restricted movement of trapped air provides little opportunity for ventilation and leads to buildup of pollutants to potentially unhealthful levels.

[11] USA.Com, San Carlos City, California: Historical Weather Report, http://www.usa.com/san-carlos-ca-weather.htm, accessed October 25, 2022.

[12] USA.Com, San Carlos City, California: Historical Weather Report, http://www.usa.com/san-carlos-ca-weather.htm, accessed February 16, 2022.

Inversions

An inversion is a layer of warmer air over a layer of cooler air. Inversions affect air quality conditions significantly because they influence the mixing depth (i.e., the vertical depth in the atmosphere available for diluting air contaminants near the ground). There are two types of inversions that occur regularly in the SFBAAB. Elevation inversions[13] are more common in the summer and fall, and radiation inversions[14] are more common during the winter. The highest air pollutant concentrations in the SFBAAB generally occur during inversions.

Attainment Status of the SFBAAB

The AQMP provides the framework for air quality basins to achieve attainment of the State and federal AAQS through the State Implementation Plan. Areas that meet AAQS are classified attainment areas, and areas that do not meet these standards are classified nonattainment areas. Severity classifications for O_3 range 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.

The attainment status for the SFBAAB is shown in Table 4.1-4, *Attainment Status of Criteria Pollutants in the San Francisco Bay Area Air Basin.* The SFBAAB is currently designated a nonattainment area for California and national O_3, California and national $PM_{2.5}$, and California PM_{10} AAQS.

TABLE 4.1-4 ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SAN FRANCISCO BAY AREA AIR BASIN

Pollutant	State	Federal
Ozone – 1-hour	Nonattainment	Classification revoked (2005)
Ozone – 8-hour	Nonattainment (serious)	Nonattainment (marginal)[a]
PM_{10}	Nonattainment	Unclassified/Attainment[b]
$PM_{2.5}$	Nonattainment	Unclassified/Attainment
CO	Attainment	Attainment
NO_2	Attainment	Unclassified
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	Attainment	Unclassified/Attainment

[13] When the air blows over elevated areas, it is heated as it is compressed into the side of the hill/mountain. When that warm air comes over the top, it is warmer than the cooler air of the valley.

[14] During the night, the ground cools off, radiating the heat to the sky.

TABLE 4.1-4 ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SAN FRANCISCO BAY AREA AIR BASIN

Pollutant	State	Federal
All others	Unclassified/Attainment	Unclassified/Attainment

a. Severity classification current as of February 13, 2017.
b. In December 2014, USEPA issued final area designations for the 2012 primary annual $PM_{2.5}$ national AAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.
Source: 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 October 26, 2022.

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project area have been documented and measured by the Air District. The Air District has 24 permanent monitoring stations around the Bay Area. The nearest station is the Redwood City Monitoring Station, which monitors O_3, NO_2, and $PM_{2.5}$. Data from these monitoring stations is summarized in Table 4.1-5, *Ambient Air Quality Monitoring Summary*. The data show regular violations of the State and federal O_3 standards and federal $PM_{2.5}$ standard.

TABLE 4.1-5 AMBIENT AIR QUALITY MONITORING SUMMARY

	Number of Days Thresholds Were Exceeded and Maximum Levels During Such Violations				
Pollutant/Standard	2017	2018	2019	2020	2021
Ozone (O_3)					
State 1-Hour ≥ 0.09 ppm	2	0	0	1	0
State & Federal 8-hour ≥ 0.07 ppm	2	0	2	1	0
Maximum 1-Hour Conc. (ppm)	0.115	0.067	0.083	0.098	0.085
Maximum 8-Hour Conc. (ppm)	0.086	0.049	0.077	0.077	0.063
Nitrogen Dioxide (NO_2)					
State 1-Hour ≥ 0.18 (ppm)	0	0	0	0	0
Maximum 1-Hour Conc. (ppb)	0.0674	0.0773	0.0549	0.0459	0.0405
Fine Particulates ($PM_{2.5}$)					
Federal 24-Hour > 35 µg/m^3	6	13	0	9	0
Maximum 24-Hour Conc. (µg/m^3)	60.8	120.9	9.5	124.1	30.1

Notes: ppm = parts per million; ppb = parts per billion; µg/m^3 = micrograms per cubic meter; * = insufficient data; NA = Not Available
Data for O_3, NO_2, and $PM_{2.5}$ was obtained from the Redwood City Monitoring Station.
Source: California Air Resources Board, 2022, Air Pollution Data Monitoring Cards (2017, 2018, 2019, 2020, and 2021), https://www.arb.ca.gov/adam/topfour/topfourdisplay.php, accessed October 26, 2022.

Existing Emissions

The project site is currently vacant, and thus, does not include any existing uses that currently generate criteria air pollutant emissions.

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 for the purposes of air quality analysis include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. 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 for the purposes of air quality analysis include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent since 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 population. However, based on the Air District methodology, workers are accounted for as a sensitive receptor.[15] Sensitive receptors to the proposed project for this air quality analysis include the single-family residences to the south and west across Industrial Road in addition to the businesses to the northwest and adjacent businesses to the east.

4.1.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the proposed project would result in a significant air quality impact 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 cumulative impacts with respect to air quality.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT THRESHOLDS

The Air District CEQA Air Quality Guidelines were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and

[15] Bay Area Air Quality Management District. 2023, April, 2022 California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines accessed July 17, 2023.

background air quality information. They also include recommended assessment methodologies for air toxics, odors, and greenhouse gas emissions. In June 2010, the Air District's Board of Directors adopted CEQA thresholds of significance and an update of the CEQA Guidelines. These thresholds are designed to establish the level at which the Air District believed air pollution emissions would cause significant environmental impacts under CEQA. The Air District published an update of the Guidelines (2022 CEQA Guidelines) in April 2023.[16] This latest version of the Air District CEQA Guidelines was used to prepare the analysis in this EIR for all CEQA Guidelines Appendix G thresholds.

Criteria Air Pollutant Emissions and Precursors

Regional Significance Criteria

The Air District's regional significance criteria for projects that exceed the screening thresholds are shown in Table 4.1-6, *Air District Regional (Mass Emissions) Criteria Air Pollutant Significance Thresholds*. Criteria for both the construction and operational phases of the project are shown.

TABLE 4.1-6 AIR DISTRICT REGIONAL (MASS EMISSIONS) CRITERIA AIR POLLUTANT SIGNIFICANCE THRESHOLDS

	Construction Phase	Operational Phase	
Pollutant	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (Tons/year)
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
PM_{10} and $PM_{2.5}$ Fugitive Dust	Best Management Practices	None	None

Source: Bay Area Air Quality Management District, 2023, CEQA Guidelines.

If projects exceed the emissions in Table 4.1-6, emissions would cumulatively contribute to the nonattainment status and would contribute in elevating health effects associated to these criteria air pollutants. Known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Health effects associated with particulate matter include premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Reducing emissions would further contribute to reducing possible health effects related to criteria air pollutants.

However, for projects that exceed the emissions in Table 4.1-6, it is speculative to determine how exceeding the regional thresholds 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

[16] Bay Area Air Quality Management District. 2023, April, 2022 California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines accessed July 17, 2023.

the air basin would be affected by the health effects cited above. The Air District is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of air quality in the Air Basin and at the present time, it has not provided methodology to assess the specific correlation between mass emissions generated and the effect on health.

Ozone concentrations are dependent upon 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. To achieve the health-based standards established by the USEPA, the air districts prepare air quality management plans that detail regional programs to attain the AAQS. However, if a project within the Plan Area exceeds the regional significance thresholds, the project could contribute to an increase in health effects in the basin until such time the attainment standards are met in the Air Basin.

CO Hotspots

Congested intersections have the potential to create elevated concentrations of CO, referred to as CO hotspots. The significance criteria for CO hotspots are based on the California AAQS for CO, which are 9.0 ppm (8-hour average) and 20.0 ppm (1-hour average). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology, the SFBAAB is in attainment of the California and national AAQS, and CO concentrations in the SFBAAB have steadily declined. Because CO concentrations have improved, the Air District does not require a CO hotspot analysis if the following criteria are met:

- The project is consistent with an applicable congestion management program established by the County Congestion Management Agency for designated roads or highways, the regional transportation plan, and local congestion management agency plans.
- The project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersection to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Community Risk and Hazards

The Air District's significance thresholds for local community risk and hazard impacts apply to both the siting of a new source and to the siting of a new receptor. Local community risk and hazard impacts are associated with TACs and $PM_{2.5}$ because emissions of these pollutants can have significant health impacts at the local level. The proposed project would generate TACs and $PM_{2.5}$ during construction activities that could elevate concentrations of air pollutants at the nearby residential sensitive receptors. The thresholds for construction-related local community risk and hazard impacts are the same as for project operations. The Air District has adopted screening tables for air toxics evaluation during construction.[17] Construction-

[17] Bay Area Air Quality Management District, 2010, Screening Tables for Air Toxics Evaluations during Construction.

related TAC and $PM_{2.5}$ impacts should be addressed on a case-by-case basis, taking into consideration the specific construction-related characteristics of each project and proximity to off-site and on-site receptors, as applicable.[18]

Community Risk and Hazards: Project

Project-level emissions of TACs or $PM_{2.5}$ from individual sources that exceed any of the thresholds listed below are considered a potentially significant community health risk:

- An excess cancer risk level of more than 10 in a million, or a noncancer (i.e., chronic or acute) hazard index greater than 1.0 would be a significant project contribution.
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$) annual average $PM_{2.5}$ from a single source would be a significant project contribution.[19]

Community Risk and Hazards: Cumulative

Cumulative sources represent the combined total risk values of each of the individual sources within the 1,000-foot evaluation zone. A project would have a cumulative considerable impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the fence line of a source or location of a receptor, plus the contribution from the project, exceeds any of the following:

- An excess cancer risk level of more than 100 in a million or a chronic noncancer hazard index (from all local sources) greater than 10.0.
- 0.8 $\mu g/m^3$ annual average $PM_{2.5}$.[20]

In February 2015, Office of Environmental Health Hazard Assessment (OEHHA) adopted new health risk assessment guidance that includes several efforts to be more protective of children's health. These updated procedures include the use of age sensitivity factors to account for the higher sensitivity of infants and young children to cancer causing chemicals, and age-specific breathing rate.[21]

Odors

The Air District's thresholds for odors are qualitative based on the Air District's Regulation 7, *Odorous Substances.* This rule places general limitations on odorous substances and specific emission limitations on certain odorous compounds. Odors are also regulated under Air District Regulation 1, Rule 1-301,

[18] Bay Area Air Quality Management District. 2023, April, 2022 California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines accessed July 17, 2023.

[19] Bay Area Air Quality Management District. 2023, April, 2022 California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines accessed July 17, 2023.

[20] Bay Area Air Quality Management District. 2023, April, 2022 California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines accessed July 17, 2023.

[21] Office of Environmental Health Hazard Assessment, 2015, Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments.

Public Nuisance, which states that no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health, or safety of any such persons or the public, or which cause, or has a natural tendency to cause, injury, or damage to business or property. Under the Air District's Rule 1-301. The Air District has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants.[22] For a plan-level analysis, the Air District requires:

- Identification of potential existing and planned location of odors sources.
- Policies to reduce odors.

4.1.3 IMPACT DISCUSSION

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 with the proposed project. The Air District has published the CEQA Air Quality Guidelines that provides local governments with guidance for analyzing and mitigating air quality impacts and was used in this analysis.

Regional Emissions Modeling

Criteria air pollutant emissions modeling is included in Appendix C, *Air Quality and Greenhouse Gas Modeling*, of this Draft EIR. The proposed project criteria air pollutant emissions inventory was modeled using the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.14 and includes the following sectors:

- On-Road Transportation. Transportation emissions are based on the trip generation for a hotel provided by W-Trans (see Appendix H, *Transportation*, of this Draft EIR). The fleet mix in CalEEMod was adjusted to reflect a higher proportion of passenger vehicles based on vehicle fleet mix data provided by W-Trans for the proposed hotel project.
- Area Sources. Area sources generated from use of consumer products and cleaning supplies are based on CalEEMod Version 2022.1.1.14 default emission rates and on the assumed building square footage.
- Energy. The CalEEMod default energy rates were utilized for the proposed project.
- Construction. The project-related construction emissions are based on information provided by the project applicant and CalEEMod defaults. Construction is modeled to occur between June 2024 to December 2025 for an approximately 18-month duration, based on information provided by the project applicant. The construction equipment mix is generally based on CalEEMod defaults. Per Air

[22] Bay Area Air Quality Management District. 2023, April, 2022 California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines accessed July 17, 2023.

District methodology, the baseline/unmitigated modeling scenario assumes watering exposed areas twice daily and limiting on-site vehicle speeds to 15 miles per hour. These two measures are part of the nine measures included under the Air District's basic best management practices for controlling fugitive dust.[23]

Localized Emissions Modeling

A construction HRA from TACs and $PM_{2.5}$ associated with construction equipment exhaust was prepared for the proposed project and is included in Appendix C, *Air Quality and Greenhouse Gas Modeling*, of this Draft EIR. Sources evaluated in the HRA include off-road construction equipment and heavy-duty diesel trucks along the truck route. Modeling is based on the USEPA's AERMOD air dispersion modeling program and the latest HRA guidance from the OEHHA to estimate excess lifetime cancer risks, chronic non-cancer hazard indices, and the $PM_{2.5}$ maximum annual concentrations at the nearest maximum exposed off-site sensitive receptors (residences) and assumes 24-hour outdoor exposure with risks averaged over a 70-year lifetime.

DPM emissions were based on the CalEEMod construction runs, using annual exhaust PM_{10} construction emissions presented in pounds (lbs) per day. The $PM_{2.5}$ emissions were taken from the CalEEMod output for annual exhaust and fugitive dust $PM_{2.5}$ emissions, also presented in pounds per day. The proposed project was assumed to take place over approximately 1.53 years (399 workdays) from beginning of June 2024 to mid-December 2025. The average daily emission rates (lbs/day) from construction equipment used during the proposed project were determined by dividing the annual emissions for each construction year by the number of construction workdays per year for each calendar year of construction (i.e., 2024 through 2025).

Air dispersion modeling using the USEPA's AERMOD program was conducted to assess the impact of emitted compounds on sensitive receptors (i.e., residents and workers). The model is a steady state Gaussian plume model and is an approved model by the Air District for estimating ground level impacts from point and fugitive sources in simple and complex terrain. Meteorological data obtained from CARB for the nearest representative meteorological station (San Carlos International Airport) with the five latest available years (2012 to 2015 and 2017) of record were used to represent local weather conditions and prevailing winds. The health risks are calculated using the annual construction emission rates and the AERMOD output at the maximum exposed individual resident (MEIR) and maximum exposed individual worker (MEIW).

AQ-1 The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.

The Air District is directly responsible for reducing emissions from area, stationary, and mobile sources in the SFBAAB to achieve national and California AAQS. The Air District's 2017 Clean Air Plan is a regional and

[23] Bay Area Air Quality Management District. 2023, April, 2022 California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines accessed July 17, 2023.

multiagency effort to reduce air pollution in the SFBAAB. A consistency determination with the air quality management plan plays an important role in local agency project review by linking local planning and individual projects to the 2017 Clean Air Plan. It fulfills the CEQA goal of informing decision makers of the environmental efforts of the project under consideration early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to the clean air goals in the 2017 Clean Air Plan.

The regional emissions inventory for the SFBAAB is compiled by the Air District. Regional population, housing, and employment projections developed by ABAG are based, in part, on cities' general plan land use designations. These projections form the foundation for the emissions inventory of the 2017 Clean Air Plan. These demographic trends are incorporated into Plan Bay Area, compiled by ABAG and the MTC to determine priority transportation projects and vehicle miles traveled in the Bay Area. The 2017 Clean Air Plan strategy is based on projections from local general plans. Projects that are consistent with the local general plan are considered consistent with the air quality-related regional plan. Large projects that exceed regional employment, population, and housing planning projections have the potential to be inconsistent with the regional inventory compiled as part of the 2017 Clean Air Plan.

As stated in Chapter 4.9, *Land Use and Planning*, of this Draft EIR, the proposed hotel project is consistent with the "General Commercial/Industrial" General Plan land use designation and the "Landmark Commercial" zoning designation for the project site. Additionally, under CEQA Guidelines Section 15206,[24] the proposed project is not considered a regionally significant project that would affect regional vehicle miles traveled and warrant intergovernmental review by ABAG and MTC. Lastly, the net increase in regional emissions generated by the proposed project would not exceed the Air District's emissions thresholds (see impact discussion AQ-2). These thresholds are established to identify projects that have the potential to generate a substantial amount of criteria air pollutants. Because the proposed project would not exceed these thresholds, the proposed project would not be considered by the Air District to be a substantial emitter of criteria air pollutants. Therefore, the proposed project would not conflict with or obstruct implementation of the 2017 Clean Air Plan, and impacts are considered *less than significant*.

Significance without Mitigation: Less than significant.

AQ-2 Without mitigation, the proposed project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under applicable federal or State ambient air quality standards.

The Air District has identified thresholds of significance for criteria pollutant emissions and criteria air pollutant precursors, including ROG, NO, PM_{10}, and $PM_{2.5}$. Development projects below these significant thresholds (listed in Table 4.1-6) are not expected to generate sufficient criteria pollutant emissions to violate any air quality standard or contribute substantially to an existing or projected air quality violation.

[24] Pursuant to CEQA Guidelines Section 15206, a proposed hotel/motel development of more than 500 rooms would be considered a project of statewide, regional, or areawide significance.

Construction Emissions

Construction activities produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the project site, and motor vehicles transporting the construction crew. Construction activities produce fugitive dust emissions (PM_{10} and $PM_{2.5}$) from demolition and soil-disturbing activities, such as grading and excavation. Air pollutant emissions from construction activities on-site would vary daily as construction activity levels change. Construction activities associated with the proposed project would result in emissions of ROG, NOx, CO, PM_{10}, and $PM_{2.5}$. An estimate of construction emissions associated with the proposed project is shown in Table 4.1-7*, Construction-Related Criteria Air Pollutant Emissions Estimate.*

TABLE 4.1-7 CONSTRUCTION-RELATED CRITERIA AIR POLLUTANT EMISSIONS ESTIMATE

	Criteria Air Pollutants (Tons/Year)[a]					
Year	ROG	NO_x	Exhaust PM_{10}	Fugitive PM_{10}[b]	Exhaust $PM_{2.5}$	Fugitive $PM_{2.5}$[b]
2024 Construction	0.13	1.10	0.04	0.20	0.04	0.05
2025 Construction	0.87	1.63	0.06	0.33	0.05	0.08

	Criteria Air Pollutants (Average lbs/day)[a]					
	ROG	NO_x	Fugitive PM_{10}[b]	Exhaust PM_{10}	Fugitive $PM_{2.5}$[b]	Exhaust $PM_{2.5}$
Average 2024 Construction	1.67	14.46	0.56	2.57	0.51	0.65
Average 2025 Construction	7.03	13	0.47	2.68	0.43	0.66
Average Daily Construction Emissions for all Construction Phases[c]	4.99	13.65	0.50	2.64	0.46	0.66
Air District Average Daily Project-Level Threshold	54	54	Implement BMPs	82	Implement BMPs	54
Exceeds Average Daily Threshold?	No	No	NA	No	NA	No

Notes: Air quality modeling does not include emissions from the construction of the emergency access road connecting to Coronado Avenue (required under Mitigation Measure TRAN-4b). However, when considered in the context of construction emissions from the proposed project as whole, average daily emissions from construction of the emergency access road would generate nominal emissions. As a result, construction of this emergency access road would not notably affect the emissions identified in this table.
BMP = Best Management Practices; NA = not applicable; emissions may not total to 100 percent due to rounding;
a. Construction phasing is based on the preliminary information provided by the project applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast Air Quality Management District of construction equipment and phasing for comparable projects.
b. Includes implementation of watering exposed areas twice daily and limiting on-site vehicle travel to 15 MPH, which are part of the best management practices for fugitive dust control required by the Bay Area Air Quality Management District. Implementation of the Air District construction best management practices is considered to result in construction-related fugitive dust emissions that are acceptable. See Mitigation Measure AQ-2.
c. Average daily emissions are based on the construction emissions divided by the total number of active construction days. The total number of construction days is estimated to be 399 workdays.
Source: CalEEMod Version 2022.1.1.14.

Construction Exhaust Emissions

Construction emissions are based on the conservative construction schedule developed for the proposed project. Activities that would take place are demolition, hauling, site preparation, grading, building construction, utility trenching, paving, and architectural coating. To determine potential construction-related air quality impacts, criteria air pollutants generated by project-related construction activities are compared to the Air District's significance thresholds. Average daily emissions are based on the total annual construction emissions divided by the total number of active construction days. As shown in Table 4.1-7, criteria air pollutant emissions from construction equipment exhaust would not exceed the Air District's average daily thresholds. Therefore, construction-related criteria pollutant emissions from exhaust would be *less than significant*.

Significance without Mitigation: Less than significant.

Fugitive Dust

Ground-disturbing activities during construction could generate fugitive dust (PM_{10} and $PM_{2.5}$) that, if left uncontrolled, could expose the areas downwind of the construction site to air pollution from the construction dust. Fugitive PM_{10} is typically the most significant source of air pollution from the dust generated from construction. The amount of fugitive dust generated during construction would be highly variable and is dependent on the amount of material being demolished, the type of material, moisture content, and meteorological conditions. PM_{10} bypasses the body's natural filtration system more easily than larger particles and can lodge deep in the lungs. $PM_{2.5}$ penetrates even more deeply into the lungs, and this is more likely to contribute to health effects—at concentrations well below current PM_{10} standards. 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).

As described under Section 4.1.2, *Standards of Significance*, the Air District does not provide a quantitative threshold for construction-related fugitive dust emissions, and a project's fugitive dust emissions are considered to be acceptable with implementation of the Air District's best management practices. In other words, there could be a significant impact if the best management practices are not enforced. For this reason, the project's fugitive dust emissions with the incorporation of the Air District's best management practices are quantified for reference in Table 4.1-7. As described in Section 4.1.1.1, *Air Pollutants of Concern*, extended exposure to particulate matter can increase the risk of chronic respiratory disease, which would be a *significant* impact.

Impact AQ-2: Uncontrolled fugitive dust (PM_{10} and $PM_{2.5}$) could expose the areas that are downwind of construction sites to air pollution from construction activities without the implementation of the Air District's best management practices.

> Mitigation Measure AQ-2: The project contractor shall comply with the Bay Area Air Quality Management District's (BAAQMD) basic best management practices for reducing construction emissions of uncontrolled fugitive dust (coarse inhalable particulate matter [PM_{10}] and fine inhalable particulate matter [$PM_{2.5}$]):

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the project site.
- Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- Publicly visible signs shall be posted with the telephone number and name of the person to contact at the City of San Carlos regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

These measures shall be noted on grading plans prepared by the applicant submitted to the City of San Carlos. The construction contractor shall implement these measures during ground disturbing activities. The City of San Carlos Building Division shall verify compliance that these measures have been implemented during normal construction site inspections.

Significance with Mitigation: Less than significant. Mitigation Measure AQ-2 would ensure that the construction contractor complies with the Air District's basic best management practices to reduce fugitive dust to less-than-significant levels.

Operational Emissions

Typical long-term air pollutant emissions are generated by area sources (e.g., landscape fuel use, aerosols, architectural coatings, and asphalt pavement), energy use (natural gas), and mobile sources (i.e., on-road vehicles). As shown in Table 4.1-8, *Operational Criteria Air Pollutant Emissions Estimates*, the operational emissions generated by the proposed project would not exceed the Air District daily pounds per day or annual tons per year project level threshold.[25] Therefore, the proposed project would not cumulatively contribute to the nonattainment designations of the SFBAAB. Project-related operation activities to the regional air quality would be *less than significant*.

[25] Further details are shown in Appendix C, *Air Quality and Greenhouse Gas Modeling*, of this Draft EIR.

TABLE 4.1-8 OPERATIONAL CRITERIA AIR POLLUTANT EMISSIONS ESTIMATES

	Criteria Air Pollutants (tons per year)[a]			
Category	ROG	NO_x	PM_{10}	$PM_{2.5}$
On-Road Mobile	0.39	0.47	1.02	0.26
Area	0.65	<0.01	<0.01	<0.01
Energy	0.01	0.19	0.01	0.01
Total	1.05	0.66	1.03	0.28
Air District Annual Project-Level tons/yr Threshold	10	10	15	10
Exceeds Air District's tons/year Threshold?	No	No	No	No

	Criteria Air Pollutants (average pounds per day)			
Category	ROG	NO_x	PM_{10}	$PM_{2.5}$
Proposed Land Use in 2025	5.77	3.60	5.66	1.52
Air District Average Daily Project-Level lbs/day Threshold	54	54	82	54
Exceeds Air District's lbs/day Threshold?	No	No	No	No

Notes: Emissions may not total to 100 percent due to rounding; Reactive Organic Gases = ROG; Nitrogen Oxides = NO_x; Coarse Inhalable Particulate Matter = PM_{10}; Fine Inhalable Particulate Matter = $PM_{2.5}$
Source: California Emissions Estimator Model (CalEEMod), Version 2022.1.1.14.

Significance without Mitigation: Less than significant.

AQ-3 The proposed project would expose sensitive receptors to substantial pollutant concentrations.

The proposed project could expose sensitive receptors to elevated pollutant concentrations if it would cause or contribute significantly to elevated pollutant concentration levels. Unlike regional emissions, localized emissions are typically evaluated in terms of air concentration rather than mass, so they can be more readily correlated to potential health effects.

Construction

The proposed project would elevate concentrations of TACs and construction exhaust $PM_{2.5}$ in the vicinity of sensitive land uses (i.e., sensitive receptors for the purposes of air quality analysis) during construction activities. The nearest off-site sensitive receptors proximate to the project site include the single-family residents to the west and south across Industrial Road and the workers at the non-residential building in the adjacent lot southeast of the project site. Construction activities would occur near these sensitive receptor locations. Consequently, an HRA of TACs and construction exhaust $PM_{2.5}$ was prepared for the proposed project and is included in Appendix C, *Air Quality and Greenhouse Gas Modeling*, of this Draft EIR.

Results of the analysis are shown in Table 4.1-9, *Construction Health Risk Assessment Results – Unmitigated*.

TABLE 4.1-9 CONSTRUCTION HEALTH RISK ASSESSMENT RESULTS – UNMITIGATED

	Project Level Risk[a, b]		
Receptor	Cancer Risk (per million)	Chronic Hazards	Construction $PM_{2.5}$ ($\mu g/m^3$)[a]
Maximum Exposed Individual Resident (MEIR)	**24.0**	0.05	0.17
Maximum Exposed Individual Worker (MEIW)	0.9	0.10	**0.35**
Threshold	10	1.0	0.3 $\mu g/m^3$
Exceeds Threshold?	**Yes**	No	**Yes**

Notes: Cancer risk calculated using the 2015 Office of Environmental Health Hazard Assessment Health Risk Assessment guidance.
a. Construction phasing are based on the preliminary information provided by the project applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast Air Quality Management District of construction equipment and phasing for comparable projects.
b. Average daily emissions are based on the total construction emissions divided by the total number of active construction days. The total number of construction days is estimated to be 399 workdays. Includes implementation of watering disturbed areas a minimum of 2 times per day and reducing speed limit to 15 MPH on unpaved surfaces, which are part of the basic BMPs for fugitive dust control required by the Air District as mitigation (Mitigation Measure AQ-2).
Source: PlaceWorks, 2023.

The results of the HRA are based on the maximum exposed receptor concentration over the approximately 1.53-year construction exposure period for off-site receptors, assuming 24-hour outdoor exposure, and averaged over a 70-year lifetime. Risk is based on the updated OEHHA Guidance as follows:

- Cancer risk for the maximum exposed individual resident (MEIR), which would be the single-family resident west of the project site, from unmitigated construction activities related to the proposed project were calculated to be 24 in a million and would exceed the 10-in-a-million significance threshold. In accordance with the latest 2015 OEHHA guidance, the calculated total cancer risk conservatively assumes that the risk for the MEIR consists of a pregnant woman in the third trimester that subsequently gives birth to an infant during the approximately 1.53-year construction period. To account for early life exposure, calculated risk values were multiplied by a factor of 10 in accordance with OEHHA guidance.
- Cancer risk for the maximum exposed individual worker (MEIW), which would be the workers at the non-residential building in the adjacent lot southeast of the project site, from unmitigated construction activities related to the proposed project were calculated to be 0.9 in a million and would not exceed the 10-in-a-million significance threshold.
- For non-carcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than 1 for both the MEIR and MEIW from construction. Therefore, chronic non-carcinogenic hazards do not exceed Air District thresholds.
- The highest $PM_{2.5}$ annual concentration of 0.17 $\mu g/m^3$ at the MEIR would not exceed the 0.3 $\mu g/m^3$ significance threshold.

- The highest $PM_{2.5}$ annual concentration of 0.35 µg/m^3 at the MEIW would exceed the 0.3 µg/m^3 significance threshold.

Consequently, prior to mitigation, cancer risk at the MEIR and $PM_{2.5}$ concentrations at the MEIW would be *significant* because the proposed project would expose sensitive receptors to substantial concentrations of air pollutant emissions during construction.

Impact AQ-3: Construction activities of the proposed project could expose sensitive receptors to substantial concentrations of toxic air contaminants, exceeding the applicable Air District threshold.

Mitigation Measure AQ-3: Construction contractors shall use United States Environmental Protection Agency Tier 4 Interim equipment for all off-road, diesel-powered construction equipment of greater than 50 horsepower (HP) that are in use over 20 hours and Tier 4 Final equipment for all off-road, diesel-powered equipment of 50 or less HP that are in use over 20 hours, unless it can be demonstrated to the City of San Carlos Building Division that such equipment is not commercially available. For purposes of this mitigation measure, "commercially available" shall mean the availability of Tier 4 Interim and Tier 4 Final engines similar to the availability for other large-scale construction projects in the city occurring at the same time and taking into consideration factors such as (i) potential significant delays to critical-path timing of construction and (ii) geographic proximity to the project site of Tier 4 Interim and Tier 4 Final equipment. Where such equipment is not commercially available, as demonstrated by the construction contractor, Tier 3 equipment retrofitted with a California Air Resources Board's Level 3 Verified Diesel Emissions Control Strategy shall be used. Furthermore, all diesel generators, if used, shall be fitted with a Level 3 diesel particulate filter (DPF). The requirement to use Tier 4 Interim and Tier 4 Final equipment for all off-road, diesel-powered construction equipment in use over 20 hours, and the requirement for diesel-powered generators fitted with Level 3 DPF shall be identified in construction bids. In addition, the following shall also be completed:

- Requirements for off-road equipment:
  - Prior to construction, the project engineer shall ensure that all demolition and grading plans clearly show the requirement for United States Environmental Protection Agency Tier 4 Interim or higher emissions standards for all off-road, diesel-powered construction equipment in use over 20 hours and the level 3 DPF for all diesel generators.
  - During construction, the construction contractor shall maintain a list of all operating off-road equipment in use over 20 hours on the construction site for verification by the San Carlos Building Division.
  - The construction equipment list shall state the makes, models, Engine Identification Numbers, Engine Family Numbers, and numbers of off-road construction equipment on-site.
  - To the extent that equipment is available and cost-effective, contractors shall use electric, hybrid, or alternate-fueled off-road construction equipment.
- Contractors shall use electric construction tools, such as saws, drills, and compressors, where grid electricity is available.

- Construction contractors shall also ensure that all nonessential idling of construction equipment is restricted to 5 minutes or less in compliance with Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9.
- All sub-contracts and construction documents shall identify that all non-essential idling of construction equipment is restricted to 5 minutes or less in compliance with California Air Resources Board Rule 2449. The construction contractor is responsible for ensuring that this requirement is met.
- Construction contractors shall water exposed surfaces at least three (3) times per day.
- Construction contractors shall apply non-toxic soil stabilizers to exposed disturbed surfaces.

Significance with Mitigation: Less than significant. The mitigated health risk values are summarized in Table 4.1-10, *Construction Health Risk Assessment Results – Mitigated*. Mitigation Measure AQ-3 would reduce cancer risk impacts to the off-site residential MEIR from 24.0 in a million to 7.8 in a million. Thus, cancer risk at the MEIR would be reduced to below the Air District cancer risk threshold of 10 in a million. Furthermore, $PM_{2.5}$ concentrations at the MEIW would be reduced to 0.13 µg/m^3 and would be below the significance threshold of 0.3 µg/m^3. Therefore, health risk impacts from project-related construction activities would be reduced to less-than-significant levels with incorporation of mitigation.

TABLE 4.1-10 CONSTRUCTION HEALTH RISK ASSESSMENT RESULTS – MITIGATED

	Project Level Risk[a, b, c]		
Receptor	Cancer Risk (per million)	Chronic Hazards	Construction $PM_{2.5}$ (µg/m^3)[a]
Maximum Exposed Individual Resident (MEIR)	7.8	0.02	0.07
Maximum Exposed Individual Worker (MEIW)	0.3	0.03	0.13
Threshold	10	1.0	0.3 µg/m^3
Exceeds Threshold?	No	No	No

Notes: Cancer risk calculated using the 2015 Office of Environmental Health Hazard Assessment Health Risk Assessment guidance.
a. Construction phasing are based on the preliminary information provided by the project applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast Air Quality Management District of construction equipment and phasing for comparable projects.
b. Includes implementation of reducing on-site speed limit to 15 miles per hour on unpaved surfaces, which is part of the Air District's basic BMPs for fugitive dust control (Mitigation Measure AQ-2). Also includes implementation of Mitigation Measure AQ-3, which requires use of Tier 4 Final equipment for any diesel-powered construction equipment of 50 or less HP and Tier 4 Interim equipment for any diesel-powered construction equipment greater than 50 HP, which are in use over 20 hours. Mitigation Measure AQ-3 also requires using non-toxic soil stabilizers and watering exposed areas a minimum of three times daily, which supersedes the two times per day requirement under Mitigation Measures AQ-2.
c. Average daily emissions are based on the total construction emissions divided by the total number of active construction days. The total number of construction days is estimated to be 399 workdays.
Source: PlaceWorks, 2023.

Operation

Health Risk

Exposure to elevated concentrations of vehicle-generated $PM_{2.5}$ and TACs at sensitive land uses have been identified by CARB, the California Air Pollution Control Officer's Association, and the Air District as a potential air quality hazard. The proposed project would not create new major sources of TACs, which are more commonly associated with industrial manufacturing or warehousing. Therefore, operation-related health risk impacts associated with the proposed project are considered *less than significant*.

Significance without Mitigation: Less than significant.

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. Because CO is produced in the greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to AAQS is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for periods of time and are subject to reduced speeds.

Congestion management plans must align with *Plan Bay Area 2050*, and an overarching goal of the regional plan is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth in outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle miles traveled and associated GHG emissions reductions under Senate Bill 375. The proposed hotel would be an infill project and would be consistent with this overarching goal of the MTC/ABAG's Plan Bay Area. Additionally, the proposed project would not conflict with the CMP because it would not hinder the capital improvements outlined in San Mateo County's 2021 CMP or alter regional travel patterns.[26] 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 mixing is substantially limited—in order to generate a significant CO impact.[27] Based on the traffic analysis conducted as part of this environmental analysis, the proposed project would generate up to 68 peak hour trips during the AM peak hour and 58 peak hour trips during the PM peak hour and would not increase traffic volumes at affected intersections to more than the Air District's screening criteria of 44,000 vehicles per hour, or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited.[28] Therefore, the proposed project would not have the potential to substantially increase CO hotspots at intersections in the project vicinity. Localized air quality impacts related to mobile-source emissions would therefore be *less than significant*.

[26] San Mateo County Transportation Commission, 2021, 2021 Congestion Management Program Report. https://ccag.ca.gov/wp-content/uploads/2022/01/258-018-San-Mateo-CMP-Report_Final.pdf, accessed October 26, 2022.

[27] https://ww2.arb.ca.gov/resources/documents/ambient-air-quality-standards-0.

[28] W-Trans, 2022, July 1, Traffic Operations Analysis for the 501 Industrial Road Project.

Significance without Mitigation: Less than significant.

AQ-4	The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The type of facilities that are typically considered to have objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. The proposed project would develop a hotel, which is not considered a type of land use typically associated in generating objectionable odors that would affect a substantial number of people.

During project-related construction activities on the project site, construction equipment exhaust and application of asphalt and architectural coatings would temporarily generate odors. Any construction-related odor emissions would be temporary and intermittent. 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. Impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

AQ-5	The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in significant cumulative impacts with respect to toxic air contaminants.

Criteria Air Pollutants

Impact discussion AQ-2 analyzes potential cumulative impacts to air quality that could occur from construction and operation of the proposed project in combination with regional growth projections in the air basin. Mitigation Measure AQ-2 would reduce impacts from fugitive dust generated during construction activities. Additionally, regional emissions would not exceed the Air District's significance thresholds (see impact discussion AQ-2). Consequently, the proposed project would not cumulatively contribute to the nonattainment designations of the Air Basin, and impacts would be *less than significant*.

Toxic Air Contaminants and $PM_{2.5}$

In addition to a project-level HRA, BAAQMD recommends assessing the potential cumulative impacts from sources of TACs within 1,000 feet of the project to address the project's cumulative contribution to localized TACs and $PM_{2.5}$. The existing TACs that BAAQMD recommends including in a cumulative analysis include permitted stationary sources, marine sources, roadway sources, rail sources, and highway sources. Risks from permitted stationary sources within 1,000 feet of the project site can be identified using

BAAQMD's *Stationary Source Screening Map*.[29] Risks from roadway sources are released periodically from BAAQMD in the form of risk assessment screening tools (RAST), which were utilized in determining associated risks at the MEIR and MEIW during construction. The risk and $PM_{2.5}$ concentrations at all permitted stationary sources within 1,000 feet of the project site were adjusted using BAAQMD's Health Risk Calculator distance multipliers to identify the associated risk at the MEIR and MEIW. No marine or rail activities occur within 1,000 feet of the project site and are therefore not included in the cumulative risk analysis.

Table 4.1-11, *Cumulative Community Risk Summary for MEIR*, summarizes the risk levels at the MEIR from the existing TAC sources in combination with project construction-related risks without implementation of Mitigation Measure AQ-3. As shown in the table, the cumulative cancer risks, chronic noncarcinogenic hazards and $PM_{2.5}$ concentrations would not exceed the respective cumulative significance thresholds. However, the cumulative cancer risk of 100.42 in a million would exceed the 100 in a million cumulative significance threshold and impacts would be *significant* without mitigation.

TABLE 4.1-11 CUMULATIVE COMMUNITY RISK SUMMARY FOR MEIR

Source	Source Type	Distance to MEIR [a]	Cancer Risk (per million)	Chronic Hazards	$PM_{2.5}$ ($\mu g/m^3$)
Project Impacts					
Project Construction [b]	Diesel Construction Equipment	80 feet	24.0	0.05	0.17
Permitted Stationary Source Impacts					
Silicon Valley Clean Water (Facility ID 1244)	N/D	0.13 mile	1.13	0.002	0.001
Holly Petroleum (Facility ID 9095)	Gasoline Dispensing	Adjacent	24.59	0.118	N/A
Holly 76 (Bay Petroleum) (Facility ID 9615)	Gasoline Dispensing	200 feet	8.61	0.030	N/A
Roadway Impacts					
U.S. Highway 101 [c]	Vehicles	800 feet	34.01	0.102	0.53
Cumulative Health Impacts					
Cumulative Project Health Impacts			92.3	0.310	0.70
BAAQMD Threshold			100	10.0	0.80
Exceeds Threshold?			**No**	**No**	**No**

Notes: N/D = no data; N/A = not applicable
a. MEIR is the resident at 96 Bayport Ct in the City of San Carlos.
b. Does not include implementation of Mitigation Measure AQ-3.
c. BAAQMD-provided values correspond with risks experienced at the MEIR.
Source: PlaceWorks, 2023.

Table 4.1-12, *Cumulative Community Risk Summary for MEIW*, summarizes the risk levels at the MEIW from the existing TAC sources in combination with project construction-related risks without

[29] Bay Area Air Quality Management District, 2022, Stationary Source Screening Map, https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html, accessed December 20, 2022.

implementation of Mitigation Measure AQ-3. As shown in the table, the cumulative cancer risks and chronic noncarcinogenic hazards would not exceed the respective cumulative significance thresholds. However, the cumulative $PM_{2.5}$ concentrations of 0.81 µg/m^3 would exceed the 0.80 µg/m^3 cumulative significance threshold and impacts would be *significant* without mitigation.

TABLE 4.1-12 CUMULATIVE COMMUNITY RISK SUMMARY FOR MEIW

Source	Source Type	Distance to MEIW [a]	Cancer Risk (per million)	Chronic Hazards	$PM_{2.5}$ (µg/m^3)
Project Impacts					
Project Construction [b]	Diesel Construction Equipment	Adjacent	0.9	0.10	0.35
Permitted Stationary Source Impacts					
Silicon Valley Clean Water (Facility ID 1244)[c]	N/D	>1,000 feet	1.13	0.002	0.001
Holly Petroleum (Facility ID 9095)[c]	Gasoline Dispensing	360 feet	0.23	0.020	N/A
Holly 76 (Bay Petroleum) (Facility ID 9615)[c]	Gasoline Dispensing	525 feet	0.15	0.030	N/A
Roadway Impacts					
U.S. Highway 101 [c]	Vehicles	550 feet	22.30	0.078	0.46
Cumulative Health Impacts					
Cumulative Project Health Impacts			49.6	0.320	0.81
BAAQMD Threshold			100	10.0	0.80
Exceeds Threshold?			**No**	**No**	**Yes**

Notes: N/D = no data; N/A = not applicable
a. MEIW is the commercial building at 551 Industrial Road in the City of San Carlos.
b. Does not include implementation of Mitigation Measure AQ-3.
c. BAAQMD-provided values correspond with risks at the MEIW. It should be noted that the screening level cancer risk values for permitted stationary sources and roadway sources provided in this table are determined for residential receptors, which tend to produce higher cancer risks than for worker receptors due to longer residential exposure duration, age sensitivity factors, and elevated breathing rates as compared to worker receptors. Therefore, the cumulative cancer risk values provided in this table are conservative.
Source: PlaceWorks, 2023.

Impact AQ-5: Cumulative cancer risks from project-related construction activities and existing sources of toxic air contaminants (TACs) would exceed the applicable Air District cumulative threshold and could expose sensitive receptors to substantial cumulative concentrations of TACs.

Mitigation Measure AQ-5: Implement Mitigation Measure AQ-3.

Significance with Mitigation: Less than significant. Table 4.1-13, *Cumulative Community Risk Summary for MEIW with Mitigation*, summarizes the risk levels at the MEIW from the existing TAC sources in combination with mitigated project construction risks. As shown in the table, incorporation of mitigation would reduce the proposed project's mitigated construction risks combined with the risks associated with the existing TAC sources within 1,000 to below BAAQMD's cumulative $PM_{2.5}$ significance threshold. Therefore, cumulative localized impacts from TACs and $PM_{2.5}$ would be reduced to less-than-significant levels with incorporation of mitigation.

TABLE 4.1-13 CUMULATIVE COMMUNITY RISK SUMMARY FOR MEIW WITH MITIGATION

Source	Source Type	Distance to MEIW [a]	Cancer Risk (per million)	Chronic Hazards	$PM_{2.5}$ ($\mu g/m^3$)
Project Impacts					
Mitigated Project Construction [b]	Diesel Construction Equipment	Adjacent	0.3	0.03	0.13
Permitted Stationary Source Impacts					
Silicon Valley Clean Water (Facility ID 1244)[c]	N/D	>1,000 feet	1.13	0.002	0.001
Holly Petroleum (Facility ID 9095)[c]	Gasoline Dispensing	360 feet	0.23	0.020	N/A
Holly 76 (Bay Petroleum) (Facility ID 9615)[c]	Gasoline Dispensing	525 feet	0.15	0.030	N/A
Roadway Impacts					
U.S. Highway 101 [c]	Vehicles	550 feet	22.30	0.078	0.46
Cumulative Health Impacts					
Cumulative Project Health Impacts			49.0	0.26	0.59
BAAQMD Threshold			100	10.0	0.80
Exceeds Threshold?			**No**	**No**	**No**

Notes: N/D = no data; N/A = not applicable
a. MEIW is the commercial building at 551 Industrial Road in the City of San Carlos.
b. Includes implementation of Mitigation Measure AQ-3.
c. BAAQMD-provided values correspond with risks at the MEIW. It should be noted that the screening level cancer risk values for permitted stationary sources and roadway sources provided in this table are determined for residential receptors, which tend to produce higher cancer risks than for worker receptors due to longer residential exposure duration, age sensitivity factors, and elevated breathing rates as compared to worker receptors. Therefore, the cumulative cancer risk values provided in this table are conservative.
Source: PlaceWorks, 2023.

4.2 BIOLOGICAL RESOURCES

This chapter describes existing biological resources at the project site and evaluates the potential impacts on biological resources associated with future development of the proposed project. A summary of the relevant regulatory setting and existing conditions is followed by a discussion of the proposed project impacts and cumulative impacts.

As discussed in the Notice of Preparation (see Appendix A, *Notice of Preparation, Initial Study, and Scoping Comments*, of this Draft Environmental Impact Report [EIR]), the proposed project would not result in significant environmental impacts related to special-status species, riparian habitat, wetlands, local biological resource polices, or any habitat conservation plans. Therefore, this chapter's environmental setting and impact discussion focus on special-status animal species and wildlife movement.

4.2.1 ENVIRONMENTAL SETTING

4.2.1.1 REGULATORY FRAMEWORK

Federal Regulations

Federal Endangered Species Act

The United States Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) is responsible for implementation of the Federal Endangered Species Act (FESA) (16 United States Code Section 1531 et seq.). The Act protects fish and wildlife species that are listed as threatened or endangered and their habitats. "Endangered" species, subspecies, or distinct population segments are those that are in danger of extinction through all or a significant portion of their range, and "threatened" species, subspecies, or distinct population segments are likely to become endangered in the near future.

If a listed species or its habitat is found to be affected by a project, then according to Section 7 of the FESA, all federal agencies are required to consult with USFWS and NOAA Fisheries when a federal nexus exists. The purpose of consultation with USFWS and NOAA Fisheries is to ensure that the federal agencies' actions do not jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat for listed species. A Section 10(a) incidental take permit applies to situations where a non-federal government entity must resolve potential adverse impacts to species protected under FESA, which typically requires preparation of an agency-approved habitat conservation plan to allow for the anticipated take.

Section 9 of the FESA prohibits the take of any fish or wildlife species listed as endangered, including the destruction of habitat that prevents the species' recovery. "Take" is defined as an action or attempt to hunt, harm, harass, pursue, shoot, wound, capture, kill, trap, or collect a species. Section 9 prohibitions also apply to threatened species unless a special rule has been defined with regard to taking at the time of listing. Under Section 9 of the FESA, the take prohibition applies only to wildlife and fish species. However, Section 9 does prohibit the unlawful removal and reduction to possession, or malicious damage or destruction, of any endangered plant from federal land. Section 9 prohibits acts to remove, cut, dig up,

damage, or destroy an endangered plant species in non-federal areas in knowing violation of any State law or in the course of criminal trespass. Section 9 does not provide any protection for candidate species and species that are proposed or under petition for listing.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MTBA) (16 United States Code 703 et seq.) governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. Moreover, the MBTA prohibits the take, possession, import, exports, transport, selling, purchase, barter—or offering for sale, purchase, or barter—any migratory bird, their eggs, parts, or nests, except as authorized under a valid permit.[1]

State Regulations

California Fish and Game Code

California Fish and Game Code Section 3503.5 prohibits take, possession, or destruction of any raptor (bird of prey species in the orders Falconiformes and Strigiformes), including their nests or eggs. Violations of this law include destruction of active raptor nests as a result of tree removal and disturbance to nesting pairs by nearby human activity that causes nest abandonment and reproductive failure.

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA and is administered by the CDFW. Its intent is to prohibit take and protect State-listed endangered and threatened species of fish, wildlife, and plants. Unlike its federal counterpart, the CESA also applies the take prohibitions to species petitioned for listing (State candidates). Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, the CESA does not include listing provisions for invertebrate species. Under certain conditions, the CESA has provisions for take through a 2081 permit or Memorandum of Understanding. In addition, some sensitive mammals and birds are protected by the State as Fully Protected Species. California Species of Special Concern (SSC) are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's California Natural Diversity Data Base (CNDDB), a database of known and recorded occurrences of sensitive species. Informally listed taxa are not protected per se but warrant consideration in the preparation of biological resources assessments.

Other Statutes, Codes and Policies Affording Species Protection

The CDFW maintains an administrative list of California Species of Special Concern (SSC), defined as a "species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

[1] Code of Federal Regulations Title 50 Section 21.11.

- Is extirpated from the State, or, in the case of birds, in its primary seasonal or breeding role;
- Is listed as federally, but not State threatened or endangered;
- Meets the State definition of threatened or endangered but has not formally been listed;
- Is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status;
- Has naturally small populations exhibiting high susceptibility to risk from any factor(s) that, if realized, could lead to declines that would qualify it for State threatened or endangered status."

The CDFW's Nongame Wildlife Program is responsible for producing and updating SSC publications for mammals, birds, and reptiles and amphibians. Section 15380 of the California Environmental Quality Act (CEQA) Guidelines clearly indicates that SSC should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein. In contrast to species listed under the federal ESA or CESA, however, SSC have no formal legal status.

Local Regulations

The San Carlos 2030 General Plan outlines various goals, policies, and actions relevant to biological resources in San Carlos in the Environmental Management Element. The policies relevant to the proposed project are listed in Table 4.2-1, *City of San Carlos 2030 General Plan Policies Relevant to Biological Resources*.

TABLE 4.2-1 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO BIOLOGICAL RESOURCES

Policy Number	Policy Text
Chapter 6, Environmental Management (EM) Element	
Policy EM-1.1	Ensure that potential impacts to biological resources and sensitive habitat are carefully evaluated when considering development project applications.
Policy EM-1.2	Ensure that development is consistent with all federal, State and regional regulations for habitat and species protection.
Policy EM-1.5	Promote the preservation of native species, habitat and vegetation types and overall natural diversity.
Policy EM-3.1	Maintain and expand the urban canopy with special emphasis on protection of heritage trees.

Source: City of San Carlos, 2009, *2030 General Plan*.

4.2.1.2 EXISTING CONDITIONS

Vegetation and Habitat Types

As discussed in Chapter 3, *Project Description*, the project site is urban and undeveloped, with no structures, landscaping or vegetation on-site. The lack of vegetation on the project site reflects a history of past disturbance associated with the previous Bayshore Supply business construction and operation. The majority of the site has been modified by past grading and other disturbance, during construction of roadways and structures.

The San Carlos General Plan shows the project site as outside of any identified vegetation or habitat area.[2] However, habitats in the vicinity of the project site include Annual Grassland, Lacustrine, and Saline Emergent Wetland. Descriptions of each habitat are provided below.[3]

Annual Grassland

Annual Grassland habitats are open grasslands composed primarily of annual plant species. They generally occur on flat plains to gently rolling foothills. Introduced annual grasses are the dominant plant species in this habitat and include wild oats (*Avena fatua*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis*), wild barley (*Hordeum spontaneum*), and foxtail fescue (*Vulpia myuros*). Many wildlife species use Annual Grasslands for foraging, but some require special habitat features such as cliffs, caves, ponds, or habitats with woody plants for breeding, resting, and escape cover. Common animals that occur in grassland habitats include the common gartersnake (*Thamnophis*), short-eared owl (*Asio flammeus*), and northern harrier (*Circus hudsonius*).

Lacustrine

Lacustrine habitats are inland depressions or dammed riverine channels containing standing water that vary from small ponds less than one hectare to large areas covering several square kilometers. They can be found throughout California at all elevations but are less abundant in arid regions. Typical lacustrine habitats include permanently flooded lakes and reservoirs, intermittent lakes, and shallow ponds where rooted plants can grow over the bottom. Most permanent lacustrine systems support fish life; intermittent types usually do not. Suspended organisms such as plankton are found in the open water of lacustrine habitats. Submerged plants such as algae and pondweeds (*Potamogeton*) serve as supports for smaller algae and as cover for swarms of minute aquatic animals. A blanket of duckweed (*Lemnoideae*) may cover the surface of shallow water. Floating plants offer food and support for numerous herbivorous animals that feed both on phytoplankton and the floating plants such as water lilies (*Nymphaeaceae*) and smartweeds (*Persicaria*).

Saline Emergent Wetland

Saline Emergent Wetlands are characterized as salt or brackish marshes consisting mostly of perennial graminoids and forbs along with algal mats on moist soils and at the base of vascular plant stems. They occur above intertidal sand and mudflats and below upland communities not subject to tidal action, along the margins of bays, lagoons, and estuaries. Vegetational coverage is complete or nearly so, except where creeks and ponds are present or following disruption. Saline Emergent Wetlands provide food, cover, and nesting and roosting habitat for a variety of birds, mammals, reptiles, and amphibians. Endemic subspecies or birds include the California black rail (*Laterallus jamaicensis coturniculus*) and three subspecies of the song sparrow (*Melospiza melodia*).

[2] City of San Carlos, 2009, *San Carlos 2030 General Plan*, Figure 6-1, *Vegetation and Habitat Types*, page 114.

[3] California Department of Fish and Wildlife, 2022, Wildlife Habitats – California Wildlife Habitat Relationships System, https://wildlife.ca.gov/Data/CWHR/Wildlife-Habitats#:~:text=The%20CWHR%20habitat%20classification%20scheme%20was%20developed%20to%20provide%20a,classification%20scheme%20had%2053%20habitats., accessed August 11, 2022.

Special-Status Species

Special-status species[4] are plants and animals that are legally protected under CESA and/or FESA or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. Species protected by the CESA and FESA often represent major constraints to development, particularly when the species are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a "take"[5] of these species.

Figure 4.2-1, *Special-Status Animal Species,* and Figure 4.2-2, *Special-Status Plant Species*, show the known occurrences of special-status animal and plant species respectively in the San Carlos area based on the CNDDB inventory, which indicates that there are no known occurrences from the project site or immediate vicinity. Suitable natural habitat and vegetation for most special-status species in the San Carlos vicinity is absent on the project site.

Wildlife Movement Corridors

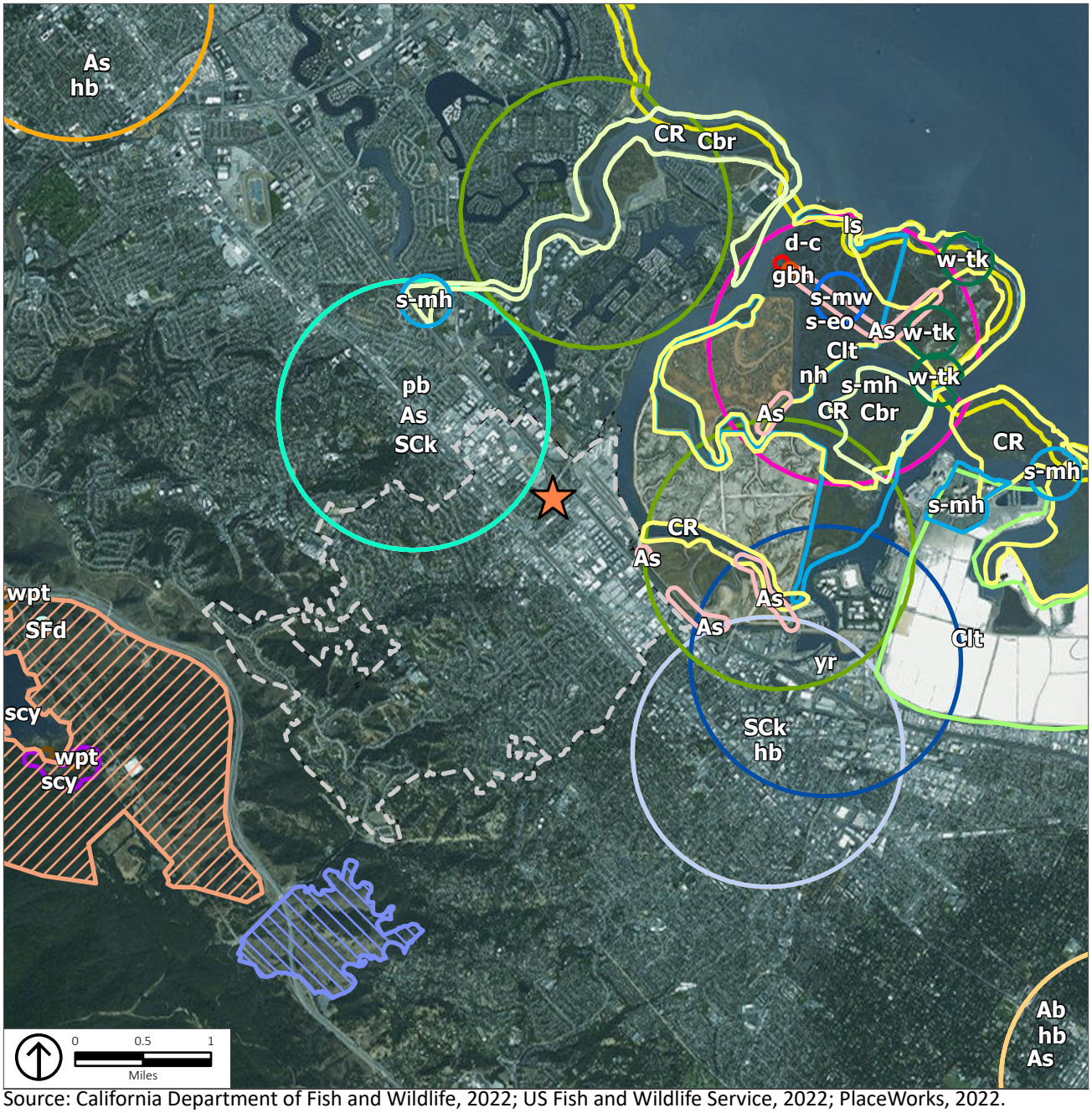
Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by impassible barriers, large bodies of water, distinct changes in cover, and intensive human activity, among other factors. Urbanization and the resulting fragmentation of undeveloped open space areas can create isolated “islands” of wildlife habitat, separating populations that can lead to genetic isolation and sometimes extirpation. Corridors act as an effective link between populations, allowing for genetic exchange and recruitment of dispersing individual animals where the local carrying capacity, competition and other influences allow.

The extent of urbanization in the surrounding area of the project site limits opportunities for wildlife movement across a broader area through this part of San Carlos. The absence of any active creeks on the project site preclude movement by fish and other aquatic-dependent wildlife.

[4] Special-status species include:

- Officially designated (rare, threatened, or endangered) and candidate species for listing identified by the CDFW;
- Officially designated (threatened or endangered) and candidate species for listing identified by the USFWS;
- Species considered to be rare or endangered under the conditions of Section 15380 of the CEQA Guidelines, such as those with a rank of 1 or 2 in the *Inventory of Rare and Endangered Plants of California* maintained by the California Native Plant Society (CNPS); and
- Possibly other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those with a rank of 3 and 4 in the CNPS *Inventory* or identified as animal "Species of Special Concern" (SSC) by the CDFW which have no legal protective status under CESA but are of concern to the CDFW because of severe decline in breeding populations in California.

[5] "Take" as defined by the FESA means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect" a threatened or endangered species. "Harm" is further defined by the USFWS to include the killing or harming of wildlife due to significant obstruction of essential behavior patterns (i.e., breeding, feeding, or sheltering) through significant habitat modification or degradation. The CDFW also considers the loss of listed species habitat as take, although this policy lacks statutory authority and case law support under the CESA.



Source: California Department of Fish and Wildlife, 2022; US Fish and Wildlife Service, 2022; PlaceWorks, 2022.

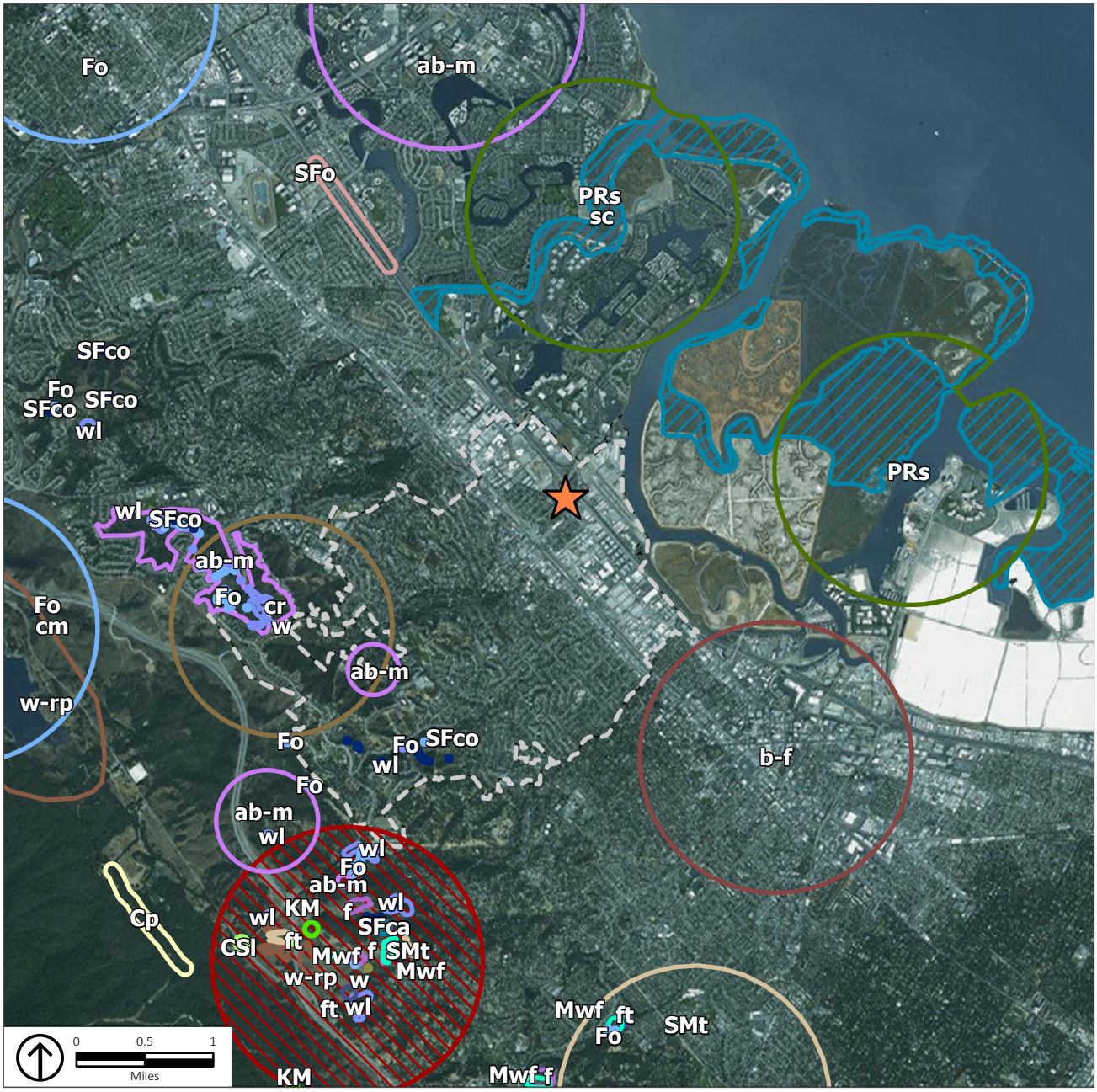
Project Site
City Limit

USFWS Critical Habitats
Bay Checkerspot Butterfly
California red-legged frog

Special-Status Animal Occurrences
As: Alameda song sparrow
Ab: American badger
Cbr: California black rail
Clt: California least tern
CR: California Ridgway's rail
d-c: double-crested cormorant
gbh: great blue heron
hb: hoary bat
ls: longfin smelt
nh: northern harrier
pb: pallid bat
SCk: Santa Cruz kangaroo rat
SFd: San Francisco dusky-footed woodrat
s-c: steelhead - central California coast DPS
s-eo: short-eared owl
s-mh: salt-marsh harvest mouse
s-mw: salt-marsh wandering shrew
wpt: western pond turtle
wsp: western snowy plover
w-tk: white-tailed kite
yr: yellow rail
*American peregrine falcon
*San Francisco gartersnake

* Note: Occurrence data is not disclosed by CNDDB due to sensitivity.

Figure 4.2-1
Special-Status Animal Species



Source: California Department of Fish and Wildlife, 2022; US Fish and Wildlife Service, 2022; PlaceWorks, 2022.

- Project Site
- City Limit

Sensitive Natural Communities

- Northern Coastal Salt Marsh
- Serpentine Bunchgrass

Special-Status Plant Occurrences

- ab-m: arcuate bush-mallow
- b-f: bent-flowered fiddleneck
- cm: coastal marsh milk-vetch
- Cp: Choris' popcornflower
- cr: chaparral ragwort
- CSl: Crystal Springs lessingia
- f: fragrant fritillary
- Fo: Franciscan onion
- ft: fountain thistle
- KM: Kings Mountain manzanita
- Mwf: Marin western flax
- PRs: Point Reyes salty bird's-beak
- sc: saline clover
- SFca: San Francisco campion
- SFco: San Francisco collinsia
- SFo: San Francisco owl's-clover
- SMt: San Mateo thorn-mint
- w: woodland woollythreads
- wl: western leatherwood
- w-rp: white-rayed pentachaeta
- *Hillsborough chocolate lily

* Note: Occurrence data is not disclosed by CNDDB due to sensitivity.

Figure 4.2-2
Special-Status Plant Species

4.2.2 STANDARDS OF SIGNIFICANCE

Based on the preliminary analysis in the Notice of Preparation (see Appendix A, *Notice of Preparation, Initial Study, and Scoping Comments*, of this Draft EIR), it was determined that development of the proposed project would not result in significant environmental impacts related to the following standards of significance. Therefore, these standards are not discussed further in this EIR:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- 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.
- Have a substantial or 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.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

The proposed project would result in a significant biological resources impact if it would:

1. 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.
2. In combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to biological resources.

4.2.3 IMPACT DISCUSSION

BIO-1	**The proposed project would not interfere with the movement of a 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.**

Due to its location in a highly urbanized environment, the project site does not offer overland wildlife movement. However, the proposed hotel building has the potential to contribute to an increased risk of bird collisions and mortalities.

The project site is not within 300 feet of an Urban Bird Refuge, defined as open spaces 2 acres or larger dominated by vegetation, including vegetated landscaping, forest, meadows, grassland, water features, or

wetland.[6] In addition, the proposed design of the hotel includes many features that would reduce the potential for bird strike. The proposed project would not include any glass skyways or walkways, freestanding glass walls, or transparent building corners. The proposed project would utilize downward facing lighting and low-emissivity clear glazing on windows. Guestroom windows all have sections of glazing that are less than 24 square feet except for the Presidential Suite facing Industrial Road. Sections of glazing facing Industrial Road would include framing to reduce the largest glazing section to less than 24 square feet, avoiding building feature-related hazards to birds. Therefore, the impact would be *less than significant*.

Significance without Mitigation: Less than significant.

BIO-2	**The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to biological resources.**

Implementation of the proposed project in conjunction with the projects listed in Table 4-1, *Cumulative Development Projects*, in Chapter 4, *Environmental Analysis*, of this Draft EIR, would result in continued development in the City of San Carlos and surrounding area. The potential impacts of proposed development on biological resources tends to be site specific, and the overall cumulative effect would be dependent on the degree to which significant vegetation and wildlife resources are protected on each property. This includes preservation of regulated trees, well-developed native vegetation (native grasslands, riparian woodland, and mature oaks), populations of special-status plant or wildlife species, and wetland features (including seasonal wetlands and stream channels). Further environmental review of specific development proposals in the vicinity of the project site would serve to ensure that important biological resources are identified, protected and properly managed, and to prevent any significant adverse development-related impacts.

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.

Due to the existing level of urbanization on the project site, the proposed project would not contribute to any potential cumulative impacts because proposed project would not involve the development of previously undeveloped lands or other lands with high habitat value. Therefore, the proposed project would result in a *less-than-significant* cumulative impact on biological resources.

Significance without Mitigation: Less than significant.

[6] San Francisco Planning Department, July 14, 2011, *Standards for Bird-Safe Buildings*, https://sfplanning.org/sites/default/files/documents/reports/bird_safe_bldgs/Standards%20for%20Bird%20Safe%20Buildings%20-%2011-30-11.pdf, accessed May 2, 2022.

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4.3 CULTURAL RESOURCES

This chapter describes existing cultural resources relevant to the project site and evaluates the potential cultural resource impacts associated with future development of the proposed project. A summary of the relevant regulatory setting and existing conditions is followed by a discussion of the proposed project impacts and cumulative impacts.

4.3.1 ENVIRONMENTAL SETTING

4.3.1.1 REGULATORY FRAMEWORK

Federal Regulations

The National Historic Preservation Act of 1966 established the National Register of Historic Places (National Register) as the official designation of historical resources, including districts, sites, buildings, structures and objects. For a property to be eligible for listing in the National Register, it must be significant in American history, architecture, archaeology, engineering, or culture, and must retain integrity in terms of location, design, setting, materials, workmanship, feeling and association. Resources less than 50 years in age, unless of exceptional importance, are not eligible for the National Register. Though a listing in the National Register does not prohibit demolition or alteration of a property, the California Environmental Quality Act (CEQA) requires the evaluation of project effects on properties that are listed in the National Register.

State Regulations

California Environmental Quality Act

Section 15064.5 of the CEQA Guidelines states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant impact on the environment. The CEQA Guidelines define four ways that a property can qualify as a significant historical resource for purposes of CEQA compliance:

- The resource is listed in or determined eligible for listing in the California Register of Historical Resources, as determined by the State Historical Resources Commission.
- The resource is included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code, or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- The lead agency determines the resource to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, as supported by substantial evidence in light of the whole record.

- The lead agency determines that the resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1 (CEQA Guidelines Section 15064.5) which means, in part, that it may be eligible for the California Register.

In addition, Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines specify lead agency responsibilities to determine whether a project may have a significant effect on archaeological resources. If it can be demonstrated that a project would damage a unique archaeological resource, the lead agency may require reasonable efforts for the resources to be preserved in place or left in an undisturbed state. Preservation in place is the preferred approach to mitigation. The Public Resources Code also details required mitigation if unique archaeological resources are not preserved in place.

Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These codes protect such remains from disturbance, vandalism, and inadvertent destruction, establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establish the Native American Heritage Commission (NAHC) as the authority to identify the most likely descendant and mediate any disputes regarding disposition of such remains.

California Register of Historic Resources

The California Register of Historic Resources (California Register) establishes a list of properties to be protected from substantial adverse change (Public Resources Code Section 5024.1). The State Office of Historic Preservation (OHP) has determined that buildings, structures and objects 45 years or older may be of historical value. A historical resource may be listed in the California Register if it meets any of the following criteria:

- It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- It is associated with the lives of persons important in California's past.
- It 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 value.
- It has yielded or is likely to yield information important in prehistory or history.

The California Register includes properties that are listed or have been formally determined eligible for listing in the National Register, State Historical Landmarks and eligible Points of Historical Interest. Other resources that may be eligible for the California Register, and which require nomination and approval for listing by the State Historic Resources Commission, include resources contributing to the significance of a local historic district, individual historical resources, historical resources identified in historic surveys conducted in accordance with OHP procedures, historic resources or districts designated under a local ordinance consistent with the procedures of the State Historic Resources Commission, and local landmarks or historic properties designated under local ordinance.

California Health and Safety Code

California Health and Safety Code Section 7050.5 requires that in the event that human remains are discovered within the project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC.

State Laws Pertaining to Human Remains

Any human remains encountered during ground-disturbing activities are required to be treated in accordance with California Code of Regulations Section 15064.5(e) (CEQA), PRC Section 5097.98, and the California Health and Safety Code Section 7050.5. California law protects Native American burials, skeletal remains, and associated grave goods regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. Specifically, Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are determined to be of Native American origin, the county coroner must contact the California NAHC within 24 hours of this identification. An NAHC representative will then identify a Native American Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. In addition, CEQA Guidelines Section 15064.5 specifies the procedures to be followed in case of the discovery of human remains on non-federal land. The disposition of Native American burials falls within the jurisdiction of the NAHC.

Local Regulations

The San Carlos 2030 General Plan outlines various goals, policies, and actions relevant to cultural resources in San Carlos in the Land Use Element. The policies relevant to the proposed project are listed in Table 4.3-1, *City of San Carlos 2030 General Plan Policies Relevant to Cultural Resources*.

TABLE 4.3-1 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO CULTURAL RESOURCES

Policy Number	Policy Text
Chapter 3, Land Use (LU) Element	
Policy LU-12.1	Evaluate historical and cultural resources in the development review process through consultation with interested parties.
Policy LU-12.2	Foster the preservation, restoration, and compatible reuse of architecturally and/ or significant structures and sites.
Policy LU-12.3	Ensure that modifications to identified historic resources are consistent with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties.

TABLE 4.3-1 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO CULTURAL RESOURCES

Policy Number	Policy Text
Policy LU-12.5	Treat with respect and dignity any human remains discovered during implementation of public and private projects within the city and fully comply with the California Native American Graves Protection and Repatriation Act and other appropriate laws.

Source: City of San Carlos, 2009, *2030 General Plan*.

4.3.1.2 EXISTING CONDITIONS

This section provides an overview of the history of San Carlos and resources of cultural significance that may be affected by the proposed project.

Project Site History

According to aerial photographs and topographic maps, the first building on the project site appeared in 1950, listed as used plumbing storage.[1] In 1956, a commercial building was built in the southern portion of the project site. The project site also stored lumber. By 1968, the project site had added a gas station in the northwest corner. From 1982 to 2022, the project site included all beforementioned buildings.[2] During 2022, these buildings were demolished, leaving the project site now vacant.

Historic Resources

The project site does not contain any buildings or potentially historic features. The National and California Register contain two properties of historic significance in the City of San Carlos: the Nathanial Brittan Party House and the Southern Pacific Depot, which are approximately 1.19 miles and 0.38 miles from the project site.[3,4]

The City's 1991 Historic Resources Inventory contains 52 listings, including residential and commercial structures and one public park.[5] The inventory also identifies two historic districts: the Hacienda Garden Apartments at 1315 San Carlos Avenue and the 1000 Block of Elm Street between Morse Boulevard and Brittan Avenue. The project site is approximately 0.34 miles away from any of the listed historical resources and the site itself is not listed in the Historic Resources Inventory. Although these resources are highly valued by the City, San Carlos has no historic preservation ordinance, nor formal designation.

[1] Professional Service Industries, Inc., 2019, *Phase I Environmental Site Assessment*.

[2] Professional Service Industries, Inc., 2019, *Phase I Environmental Site Assessment*.

[3] U.S. Department of the Interior, National Park Service, last updated September 2020, National Register of Historic Places, https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466, accessed on March 22, 2022.

[4] Office of Historical Preservation, 2022, California Register of Historic Resources, https://ohp.parks.ca.gov/ListedResources/?view=county&criteria=41, accessed March 22, 2022.

[5] City of San Carlos, December 1991, *Historical Resource Inventory*.

Archaeological Resources

The first known human inhabitants of San Carlos were the Ohlone, often referred to as Costanoan. The Ohlone occupied a large territory in the South Bay, including the project site. This ethnographic group settled in large permanent groupings of households, forming large villages and tribal territories known as "tribelets." The Ohlone lived in domed structures built of woven tule, ferns, and grass, and were often constructed near bayshores and valleys that provided access to waterways, increasing their ability to distribute trade goods, as well as access plant and animal life. Historians believe that two sub-tribes existed in and near San Carlos: the Salson to the north of Belmont Creek and Lhamshin in the San Carlos area. More specifically, a concentration of Ohlone is believed to have lived in the Carmelita area of San Carlos. Native American archaeological sites tend to be located near waterways, as well as along ridge tops, midslope hill terraces, alluvial flats, the base of hills, and where two vegetation communities meet. San Francisco Peninsula's proximity to both bay and marine resources led to the rapid rise in Native American tribe and tribelet populations.

According to the San Carlos 2030 General Plan, archeological data for San Carlos and San Mateo County is largely missing due to urbanization.[6] However, there are documented prehistoric archaeological deposits near the banks of Cordilleras and Pulgas Creeks, where items such as burned mammal bone, chert flakes, and shellfish were found. The project site is surrounded by development and is not near any creeks, thereby decreasing the chance that any previously undiscovered prehistoric archaeological deposits are located on the project site.

4.3.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant cultural resources impact if it would:

1. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
3. Disturb any human remains, including those interred outside of dedicated cemeteries.
4. In combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to cultural resources.

[6] City of San Carlos, 2009, *San Carlos 2030 General Plan, Land Use Element*, page 76.

4.3.3 IMPACT DISCUSSION

CULT-1 The proposed project would not cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5.

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.[7] 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 discussed under CULT-2.

As described in Section 4.3.1.2, *Existing Conditions*, there are no National or California Register listed historical resources located within or near the project site. The property does not contain any buildings, and the project site is not included in the City's 1991 Historic Resources Inventory. With no historical resources located on the project site, there would be *no impact*.

Significance without Mitigation: No impact.

CULT-2 The proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5.

Archaeological deposits that meet the definition of historical resource under CEQA Section 21084.1 or CEQA Guidelines Section 15064.5 could be present within the project site and could be damaged or destroyed by ground-disturbing construction activities (e.g., site preparation and grading) associated with the proposed project. Should this occur, the ability of the deposits to convey their significance, either as containing information about prehistory or history, or as possessing traditional or cultural significance to Native American or other descendant communities, would be materially impaired.

Although no known archaeological resources have been recorded at the project site, ground-disturbing construction activities (e.g., site preparation, grading, excavation, and trenching for utilities) associated with the proposed project may result in unanticipated discoveries of cultural resources or the damage or destruction of previously undiscovered resources. Therefore, earth-disturbing activities conducted for the proposed project would have the potential to expose previously undiscovered subsurface archaeological resources, and the impact to archaeological resources has potential to be *significant*.

Impact CULT-2: Implementation of the proposed project would have the potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15064.5.

[7] California Code of Regulations (CCR), Title 14, Chapter 3, Section 15064.5(c), Determining the Significance of Impacts on Historical and Unique Archaeological Resources.

Mitigation Measure CULT-2: Project supervisors, contractors, and equipment operators shall participate in an Archaeological Resource Awareness Training, conducted by a Secretary of Interior-qualified archaeologist, to become familiar with the type of artifacts and features that could be encountered during project-related ground disturbing activities, as well as the procedures to follow if archaeological resources are unearthed during construction. If archaeological resources are encountered during excavation or construction, construction personnel shall immediately suspend all activity within 100 feet of the suspected resources and the City and a licensed archaeologist shall be contacted to evaluate the situation. A licensed archaeologist shall be retained to inspect the discovery and determine the significance of the find and the appropriate mitigation. If the deposits are determined to be potentially significant, the resources shall be avoided if feasible. If avoidance is not feasible, project impacts shall be mitigated in accordance with the recommendations of the archeologist, in coordination with the City, local tribe, and the CEQA Guidelines Section 15126.4 (b)(3)(C), which requires implementation of a data recovery plan. Once the recovery plan has been reviewed and approved by the City, implemented, and any appropriate resource recovery completed, project construction activity within the area of the find may resume.

Significance with Mitigation: Less than significant.

CULT-3 The proposed project could disturb any human remains, including those interred outside of dedicated cemeteries.

Previously undiscovered human remains associated with pre-contact archaeological deposits may exist within the project site, as ground-disturbing activities sometimes uncover such previously unrecorded remains. As discussed under impact discussion CULT-2, ground-disturbing activities and excavation for the proposed project would have the potential to uncover buried resources. It is possible that human remains may be present on the project site. Descendant communities may ascribe religious or cultural significance to such remains, making any such disturbances a *significant* impact.

Impact CULT-3: Construction activities may result in unanticipated discovery of human remains interred outside of dedicated cemeteries.

Mitigation Measure CULT-3: In the event a human burial or skeletal element is identified during excavation or construction, all work must stop within 100 feet of the discovery area and the area shall be secured to prevent further disturbance. The City and the San Mateo County Coroner's office shall be notified immediately. If deemed prehistoric, the Coroner's office would notify the Native American Heritage Commission within 24 hours. The Native American Heritage Commission would identify a "Most Likely Descendant (MLD)." The archaeological consultant and MLD, in conjunction with the project sponsor, shall formulate an appropriate treatment plan for the find, which might include, but not be limited to, respectful scientific recording and removal, being left in place, removal and reburial on-site, or elsewhere. Associated grave goods are to be treated in the same manner.

Significance with Mitigation: Less than significant.

CULT-4 The proposed project would not result in cumulatively considerable significant impacts in combination with past, present, and reasonably foreseeable projects with respect to cultural resources.

Cumulative cultural resource 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 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.

The project site does not contain any designated historic resources. As there are no structures and no known archaeological resources, paleontological resources, or human remains on the project site, development of the proposed project would not create or contribute to a cumulative impact to cultural resources.

Mitigation Measure CULT-2 would ensure that any buried archaeological resources, if encountered, would be properly handled. Mitigation Measure CULT-3 would ensure that any potential human remains encountered during site excavation would be properly handled. Additionally, the existing federal, State, and local regulations and policies described throughout this chapter serve to protect any as-yet-undiscovered cultural resources. Continued compliance with these regulations and implementation of existing policies and requirements would preclude cumulative impacts to the maximum extent practicable. Therefore, in combination with past, present, and reasonably foreseeable projects, the proposed project would result in a *less-than-significant* cumulative impact with respect to all cultural resources.

Significance without Mitigation: Less than significant.

4.4 ENERGY

To ensure that energy implications are considered in project decisions, Appendix F, *Energy Conservation*, of the California Environmental Quality Act (CEQA) Guidelines, requires that environmental impact reports (EIRs) include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. As of April 2019, there are two specific thresholds of significance for potential energy impacts in the CEQA Guidelines. This chapter provides a general description of the regulatory setting addressing existing electric and natural gas services and infrastructure, and impact analysis from Appendix F and Appendix G of the CEQA Guidelines.

4.4.1 ENVIRONMENTAL SETTING

4.4.1.1 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, which required a fleet average of 54.5 miles per gallon in 2025. In addition, on March 31, 2022, the National Highway Traffic Safety Administration finalized new fuel standards, which will increase fuel efficiency 8 percent annually for model years 2024 to 2025 and 10 percent annual for model year 2026. Overall, the new CAFE standards require a fleet average of 49 miles per gallon for passenger vehicles and light trucks for model year 2026, which will be a 10 miles per gallon increase relative to model year 2021.[1]

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

[1] National Highway Traffic Safety Administration, 2022, USDOT Announces New Vehicle Fuel Economy Standards for Model year 2024-2026, https://www.nhtsa.gov/press-releases/usdot-announces-new-vehicle-fuel-economy-standards-model-year-2024-2026, accessed July 20, 2023.

energy, geothermal energy, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration.[2]

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

State Regulations

California Energy Commission

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

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

[2] United States Environmental Protection Agency, 2022, 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 July 20, 2023.

California Public Utilities Commission

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

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

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

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

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

Renewables Portfolio Standard

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

The California Renewables Portfolio Standard (RPS) Program was established in 2002 under Senate Bill (SB) 1078 (Sher) and 107 (Simitian). The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase the use of eligible renewable energy resources to 33 percent of total procurement by 2020. Initially under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08 was signed in November 2008, which expanded the State's Renewable Energy Standard to 33 percent renewable power by 2020. This standard

was adopted by the legislature in 2011 (SB X1-2). The CPUC is required to provide quarterly progress reports on progress toward RPS goals. This has accelerated the development of renewable energy projects throughout the State. For year 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 their supplies from renewable sources.[3]

Senate Bill 350

Governor Jerry Brown signed SB 350 on October 7, 2015, establishing tiered increases to the RPS of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses upon which an energy efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal. SB 350 also provides for the transformation of the California Independent System Operator into a regional organization to promote the development of regional electricity transmission markets in the western states and to improve the access of consumers served by the California Independent System Operator to those markets, pursuant to a specified process.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, which replaces the SB 350 requirements. Under SB 100, the RPS for public owned facilities and retail sellers consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. Additionally, SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill also establishes an overall State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Senate Bill 1020

SB 1020 was signed into law on September 16, 2022. It requires renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent by 2040. Additionally, SB 1020 requires all state agencies to procure 100 percent of electricity from renewable energy and zero-carbon resources by 2035.

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

[3] 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.

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.[4]

Title 24, Part 6, Energy Efficiency Standards

Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2022 (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 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; 4) and nonresidential lighting requirements.[5] 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.[6] 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.[7]

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 became effective and replaced the existing 2019 standards on January 1, 2023. The 2022 standards require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances. In addition, the new standards also include prescriptive photovoltaic system and battery requirements for high-rise, multifamily buildings (i.e., more than three

[4] California Energy Commission, 2017, 2016 Appliance Efficiency Regulations, https://pdf4pro.com/cdn/2016-appliance-efficiency-regulations-5104f7.pdf, accessed November 3, 2022.

[5] California Energy Commission, 2018, May 9, News Release: Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation, https://www.energy.ca.gov/news/2018-05/energy-commission-adopts-standards-requiring-solar-systems-new-homes-first, accessed on November 3, 2022.

[6] California Energy Commission, 2018, 2019 Building Energy and Efficiency Standards Frequently Asked Questions. https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf, accessed on November 3, 2022.

[7] California Energy Commission, 2018, 2019 Building Energy and Efficiency Standards Frequently Asked Questions. https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf, accessed on November 3, 2022

stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers.[8]

Title 24, Part 11, Green Building Standards

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

Overall, the code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction. CALGreen contains requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.[9]

Title 13

Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9 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. The airborne toxic control measure helps reduce public exposure to oxides of nitrogen (NO_X), diesel particulate matter (PM), and other criteria pollutant emissions from off-road diesel-fueled vehicles.

Green Building Executive Order S-20-04

In 2004, Executive Order (EO) S-20-04 was signed by the Governor, committing the State to take aggressive action to reduce State building electricity usage by retrofitting, building, and operating the most energy- and resource-efficient buildings by taking all cost-effective measures described in the Green Building Action Plan for facilities owned, funded, or leased by the State and to encourage cities, counties, and schools to do the same. It also calls for State agencies, departments, and other entities under the direct executive authority of the Governor to cooperate in taking measures to reduce grid-based energy

[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 Building Standards Commission, 2022, 2022 California Code of Regulations Title 24, Part 11, https://codes.iccsafe.org/content/CAGBC2022PI, accessed July 20, 2023.

purchases for State-owned buildings by 20 percent by 2015, through cost-effective efficiency measures and distributed generation technologies. These measures should include, but are not limited to:

- Designing, constructing and operating all new and renovated State-owned facilities paid for with State funds as "LEED Silver" or higher certified buildings;
- Identifying the most appropriate financing and project delivery mechanisms to achieve these goals;
- Seeking out office space leases in buildings with a U.S. Environmental Protection Agency Energy Star rating; and
- Purchasing or operating Energy Star electrical equipment whenever cost-effective.

Senate Bill 375

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

Executive Order N-79-20

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

- Passenger vehicle and truck regulations requiring increasing volumes of new ZEVs (zero-emission vehicles) sold in the California toward the target of 100 percent of in-state sales by 2035.
- Medium- and heavy-duty vehicle regulations requiring increasing volumes of new ZE trucks and buses sold and operated in California toward the target of 100 percent of the fleet transitioning to ZEVs by 2045 everywhere feasible, and for all drayage trucks to be ZE by 2035.
- Strategies to achieve 100 percent zero emissions from all off-road vehicles and equipment operations in California by 2035, in cooperation with other State agencies, the EPA, and local air districts.

On August 25, 2022, CARB adopted the Advanced Clean Cars II (ACC II) regulations that codifies the EO goal of 100 percent of in-state sales of new passenger vehicles and trucks be ZE by 2035. Starting in year 2026, ACC II requires that 35 percent of new vehicles sold be ZE or plug-in hybrids.

Regional Regulations

MTC and ABAG adopted *Plan Bay Area 2050* on October 21, 2021.[10] *Plan Bay Area 2050* provides transportation and environmental strategies to continue to meet the regional transportation-related GHG reduction goals of SB 375. Under the *Plan Bay Area 2050* strategies, just under half of all Bay Area households would live within one half-mile of frequent transit by 2050, with this share increasing to over 70 percent for households with low incomes. Transportation and environmental strategies that support active and shared modes, combined with a transit-supportive land use pattern, are forecasted to lower the share of Bay Area residents that drive to work alone from over 50 percent in 2015 to 36 percent in 2050. GHG emissions from transportation would decrease significantly as a result of these transportation and land use changes, and the Bay Area would meet the state mandate of a 19-percent reduction in per-capita emissions by 2035 — but only if all strategies are implemented.[11]

To achieve MTC's/ABAG's sustainable vision for the Bay Area, the *Plan Bay Area* land use concept plan for the region concentrates the majority of new population and employment growth in the region in Priority Development Areas (PDAs). PDAs are transit-oriented, infill development opportunity areas within existing communities. An overarching goal of the regional plan is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle, VMT, and associated GHG emissions reductions. The proposed project is not within an identified PDA.[12]

Local Regulations

San Carlos Municipal Code

Building Standards Code

The City of San Carlos incorporates California Building Standards, including the Title 24, Part 11, the California Green Building Standards (CALGreen), the 2022 edition, by reference in the San Carlos Municipal Code (SCMC) Section 15.04.125, *Title 24, Part 11, California Green Building Standards Code (CALGreen)*. Additionally, the City adopted Reach Codes in 2021 to improve energy efficiency and further reduce GHGs, which went beyond the minimum California Energy and Green Building Standards. These Reach Codes included amendments to CALGreen as subsections to SCMC Section 15.04.080, *Title 24, Part 6, California Energy Code with appendices,* and Section 15.04.125.

[10] Association of Bay Area Governments and the Metropolitan Transportation Commission, 2021, *Plan Bay Area 2050*, https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf, accessed July 20, 2023.

[11] Association of Bay Area Governments and the Metropolitan Transportation Commission, 2021, *Plan Bay Area 2050*, https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf, accessed July 20, 2023.

[12] Metropolitan Transportation Commission and Association of Bay Area Governments, 2020, Plan Bay Area 2050 Plan. Priority Development Areas (Plan Bay Area 2050) ArcGIS. https://opendata.mtc.ca.gov/datasets/priority-development-areas-plan-bay-area-2050/explore?location=37.496923%2C-122.269702%2C15.84, accessed July 20, 2023.

Construction Waste Diversion and Recycling

The SCMC includes construction waste diversion and recycling requirements through Chapter 8.05, *Recycling and Diversion of Construction and Demolition Debris*. The ordinance requires the following:

- Covered projects generating waste comprised of at least 95 percent inert materials, including dirt, concrete asphalt, brick, and/or cinderblock, shall be required to divert at least 60 percent of all generated tonnage.
- Covered projects generating waste comprised of mixed debris, both structural debris (e.g., wood, metal, wallboard) and inert materials (dirt, asphalt, brick, and/or cinderblock) shall be required to divert at least 60 percent of all generated tonnage. However, at least 25 percent of diverted material shall come from generated tonnage that excludes dirt, concrete, asphalt, brick and/or cinderblock should equal at least 24 tons (25 percent) and the remainder, 35 tons (35 percent) can be obtained through diversion of inert materials such as dirt, concrete, asphalt, brick, and/or cinderblock.
- Covered projects generating waste that does not include inert materials (dirt, concrete, asphalt, brick, cinderblock) shall be required to achieve at least 60 percent diversion of total generated waste.

A covered project under the ordinance is defined as a project where total development costs equal $50,000 or more or where 5 or more tons of construction and demolition debris will be generated.

San Carlos Climate Mitigation and Adaptation Plan

The City of San Carlos adopted its Climate Mitigation and Adaptation Plan (CMAP) on September 27, 2021, as an update to the San Carlos 2009 Climate Action Plan.[13] The CMAP sets forth 33 strategies to guide the City in meeting reduction goals in energy use, transportation, off-road equipment, water, wastewater, land use, and solid waste. In addition, the City's CMAP identifies the following GHG reduction targets for the City:

- Reduce emissions to 49 percent below 2005 levels by 2030.
- Reduce emissions by 83 percent below 2005 levels by 2050.

CMAP strategies and actions for energy use reduction are listed below in Table 4.4-1, *Climate Mitigation and Adaptation Plan Strategies for Reducing Energy Use*.

[13] City of San Carlos, 2021, City of San Carlos Climate Mitigation and Adaptation Plan, https://cms3.revize.com/revize/sancarlos/Document%20Center/City%20Hall/Departments%20And%20Divisions/City%20Manager/Sustainability/Climate%20Action/CMAP%20Final.pdf, accessed July 20, 2023.

TABLE 4.4-1 CLIMATE MITIGATION AND ADAPTATION PLAN STRATEGIES FOR REDUCING ENERGY USE

Strategy	Component
1. Regional Energy Conservation and Efficiency Programs	Assist businesses, schools, and non-profit organizations in assessing energy-efficiency programs, trade professionals, and financing opportunities by working with San Mateo County Energy Watch.
	Expand energy saving opportunities and assistance for large and small commercial and industrial businesses by working with San Mateo County Energy Watch, PCE, and BayREN.
4. Electrification	Encourage electrification retrofits in residential and commercial development by promoting financing programs through local organizations and agencies.
	Promote building electrification and retrofitting by working with local organizations and agencies to increase community awareness
	Promote and support opportunities for residents to test electric equipment, such as portable induction cooktops, to encourage transitioning from gas to electric appliances.
5. Building Codes	Partner with local industry organizations, community-based organizations, and regional partners to inform and educate community members about the 2021 All-Electric Reach Code requirements and community benefits
	Evaluate, update, and re-adopt as needed an all-electric reach code upon each update to the California Building Code.
	Explore and adopt, as feasible, local building code amendments requiring replacement of natural gas space and water heaters with electric models at end of life during the 2022 and successive Buildings Standards Code updates
6. Rooftop Solar	Continue to participate in the SunShares program to increase rooftop and on-site solar energy systems in the community and at City facilities.
7. Peninsula Clean Energy	Encourage residents and businesses, especially large energy users, to opt into PCE's ECO100 (100 percent renewable energy) program.
	Encourage those not purchasing energy from PCE to do so.
	Partner with PCE on programs it develops in the future that benefit the San Carlos community.
8. Battery Storage	Work with PG&E on its efforts to prepare the community for power outages through battery storage programs and incentives, including the Self-Generation Incentive Program and related energy resilience efforts.
18. Electric vehicles	Work closely with owners of multi-family dwelling units to install electric vehicle charging stations.
23. Clean-fuel construction and landscaping	Supply incentives for battery-operated or electric-powered landscaping equipment by collaborating with regional partners, such as the BAAQMD and PCE.
	Continually track technological advances in clean-fuel construction and landscaping equipment.
	Consider requirements for use of hybrid or clean-fuel construction equipment in new development when feasible.

Source: City of San Carlos, 2021. Climate Mitigation and Adaptation Plan, https://cms3.revize.com/revize/sancarlos/Document%20Center/City%20Hall/Departments%20And%20Divisions/City%20Manager/Sustainability/Climate%20Action/CMAP%20Final.pdf, accessed July 20, 2023

4.4.1.2 EXISTING CONDITIONS

This section presents information on the energy providers for the study area and the existing energy demand of the project site. The study area for this section includes the project site, as well as the jurisdiction of the City of San Carlos, and the service areas of energy providers.

Energy Provider

Peninsula Clean Energy

In 2016, San Mateo County and the City of San Carlos shifted to local Community Choice Energy (CCE) program Peninsula Clean Energy (PCE). PCE was formed as a Joint Power Authority (JPA) by San Mateo County and 20 of its cities and operates as a not-for-profit public agency. PCE offers two program options; the ECOplus, which provides 49.2-percent renewable and 100-percent GHG-free; and the ECO100 program, which provides 100-percent renewable and GHG-free service from solar and wind sources.[14] The electric energy provided by PCE is conveyed to customers through Pacific Gas and Electric Company's (PG&E) existing infrastructure. PG&E continues to maintain the grid, repair lines, and conduct customer billing within the PCE service area. Participation in PCE is consistent with policies established in the City of San Carlos' CMAP, to transition to a City-wide environmentally sustainable community.

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.[15] PG&E owns and maintains above and below ground networks of electric and gas transmission and distribution facilities throughout the city. As stated, it still delivers electricity and natural gas services to the City, although the City recently shifted to energy provider PCE. Both gas and electrical service are available at the project site.

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

PG&E gas transmission pipeline systems serve approximately 4.5 million gas customers in northern and central California.[16] 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. A new program, the Pipeline 2020 program, aims to modernize critical pipeline infrastructure, expand the use of automatic or remotely operated shut-off valves, catalyze development of next-

[14] Peninsula Clean Energy, 2021, https://www.peninsulacleanenergy.com/wp-content/uploads/2022/09/Peninsula-Clean-Energy-Power-Mix-Power-Content-Label-2021.pdf, accessed July 20, 2023.

[15] Pacific Gas and Electric Company, 2022, *Company profile.* https://www.pge.com/en_US/about-pge/company-information/profile/profile.page, accessed July 20, 2023.

[16] Pacific Gas and Electric Company, 2022. *Company profile.* https://www.pge.com/en_US/about-pge/company-information/profile/profile.page, accessed July 20, 2023.

generation inspection technologies, develop industry-leading best practices, and enhance public safety partnerships with local communities, public officials, and first responders.

Existing Energy Use

The project site does not include any existing uses that currently generate energy demands.

4.4.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant impact related to energy resources if it would:

1. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use 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 cumulative energy impacts in the area.

4.4.3 IMPACT DISCUSSION

Methodology

Based on CEQA Guidelines Appendix F, to ensure energy implications are considered in project decisions, EIRs include a discussion of the potential impacts of proposed projects, with particular emphasis on avoiding or reducing wasteful, unnecessary, or inefficient use of energy resources. Environmental effects may include the proposed project's energy requirements and its energy use efficiencies by amount and fuel type during construction and operation; the effects of the proposed project on peak- and base-period demands for electricity and other forms of energy; the degree to which the proposed project complies with existing energy standards; the effects of the proposed project on energy resources; and the proposed project's projected transportation energy use requirements and its overall use of efficient transportation alternatives, if applicable. The provided energy and fuel usage information provided in this section are based on the following criteria.

- Energy: The CalEEMod default energy rates and mixed-fuel assumptions were utilized for the proposed project. It is anticipated that only the restaurant within the proposed hotel would utilize natural gas while the remaining building uses (e.g., hotel rooms) would be all-electric. Moreover, the proposed project would include installation of a rooftop photovoltaic system that would generate on-site renewable electricity.
- On-Road Vehicle Fuel Usage: Fuel usage associated with operation-related vehicle trips are based on fuel usage data obtained from EMFAC2021, Version 1.0.2, and on vehicle trip generation data provided by W-Trans (see Appendix H, *Transportation*, of this Draft EIR).

ENE-1 Project construction and operation would not cause wasteful, inefficient, or unnecessary energy use.

Short-Term Construction Impacts

Construction of the proposed project would create temporary increased demands for electricity and vehicle fuels compared to existing conditions and would result in short-term transportation-related energy use.

Electrical Energy

Construction of the proposed project would not require electricity to power most construction equipment. Electricity use during construction would vary during different phases of construction. The majority of construction equipment during demolition and grading would be gas- or diesel-powered, and the later construction phases would primarily require electric-powered equipment for interior construction and architectural coatings. It is anticipated that the majority of 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. Overall, the use of electricity would be temporary and would fluctuate according to the phase of construction, and would not represent wasteful or unnecessary use of electricity.

Natural Gas Energy

It is not anticipated that construction equipment used for the proposed project would be powered by natural gas; therefore, no natural gas demand is anticipated during construction.

Liquid Fuels and Transportation Energy

Transportation energy use depends on the type and number of trips, VMT, fuel efficiency of vehicles, and travel mode. Transportation 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 and/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 the majority of off-road construction equipment, such as those used during grading, would be gas- or diesel-powered.

Use of construction equipment would cease upon completion of the proposed project. Thus, impacts related to transportation energy use during construction would be temporary and would not require expanded energy supplies or the construction of new infrastructure. Furthermore, to limit wasteful and unnecessary energy consumption, the construction contractors are anticipated to minimize nonessential idling of construction equipment during construction, in accordance with Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9. Construction trips would also not result in unnecessary use of energy since the project site is centrally located and is served by numerous regional roadways (e.g., Interstate 280, U.S. Highway 101, State Route 82, and State Route 92) that provide direct routes from various areas of the region. Moreover, electrical energy would be available for use during construction from existing power lines and connections, either precluding or minimizing the use of less

efficient liquid fueled generators. Thus, energy use during construction of the proposed project would not be considered inefficient, wasteful, or unnecessary.

Long-Term Operation Impacts

Operation of the proposed project would create additional demands for electricity compared to existing conditions and would result in increased transportation energy use. Operational use of energy would include heating, cooling, and ventilation of buildings; water heating; operation of electrical systems, use of on-site equipment and appliances; and indoor, outdoor, and parking lot lighting.

Electrical Energy

Table 4.4-2, *Project Annual Electricity Demand*, shows the projected calculated electricity demand of the proposed project based on CalEEMod default electricity rates. As stated, except for the proposed restaurant, which would be connected to natural gas, the rest of the proposed project would be electric. Thus, anticipated electricity demand could be higher than the 885,850 kWh per year shown in Table 4.4-2. However, electricity demand would, at minimum, be partially offset by the renewable electricity generated by the proposed rooftop photovoltaic solar system. Additionally, it is anticipated that electricity would be provided by PCE, which provided 49.2-percent and 100-percent renewable electricity under the ECOplus and ECO100 programs in year 2021, respectively. Furthermore, the proposed project would install high-efficiency heating, ventilation, and air conditioning equipment and thermostats with occupancy sensors to adjust heating and air conditioning temperatures. The proposed project would also install low-flow plumbing fixtures, which would contribute in minimizing water demand and wastewater and thereby reducing electricity associated with distribution and treatment. Therefore, operation of the proposed project would not result in inefficient or wasteful electricity use during operation.

TABLE 4.4-2 PROJECT ANNUAL ELECTRICITY CONSUMPTION

Use Type	Electricity (kWh/yr)
Hotel[a]	840,803
Parking Structure	32,976
Surface Parking Lot	12,071
Total	**885,850**

[a] Based on the default CalEEMod, v2022.1.1.14, electricity rates and mixed-fuel assumptions.
Source: PlaceWorks, 2023.

Natural Gas Energy

As stated, except for the proposed restaurant use, which would be connected to natural gas, the proposed project would be electric. In addition, the proposed project would be built to meet the 2022 Building Energy Efficiency Standards. Overall, limiting natural gas only to the proposed restaurant and designing and building the proposed project to the 2022 Building Energy Efficiency Standards would contribute to minimizing natural gas use. Therefore, operation of the proposed project would not result in inefficient or wasteful natural gas use.

Transportation Energy

The proposed project would consume transportation energy during operations from the use of motor vehicles. The efficiency, such as the average miles per gallon, of these motor vehicles is unknown. Estimates of transportation energy use are based on overall VMT and its associated transportation energy use. The project-related VMT would primarily come from hotel patrons and employees. As seen in Table 4.4-3, *Project Annual Operation-Related Fuel Usage*, the annual VMT for the proposed project is estimated to be 2,563,666 miles. The proposed project is expected to generate 756 daily vehicle trips on a typical weekday, including 68 vehicle trips during the AM peak hour and 58 vehicle trips during the PM peak hour.[17] As discussed in impact discussion TRAN-2 of Chapter 4.11, *Transportation*, of this Draft EIR, because the proposed project would not generate daily vehicle trips exceeding the 817 daily trip threshold associated with the local-serving retail screening criterion, it is assumed to have a less-than-significant VMT impact. Thus, it is expected that operation-related fuel usage associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than similar development projects.

TABLE 4.4-3 PROJECT ANNUAL OPERATION-RELATED FUEL USAGE

	Gasoline		Diesel		CNG		Electricity	
Proposed Project	Annual VMT	Annual Gallons	Annual VMT	Annual Gallons	Annual VMT	Annual Gallons	Annual VMT	Annual kWh
Passenger Vehicles	2,563,666	99,948	133,803	14,292	2,875	436	164,268	59,756

Source: EMFAC2021 v. 1.0.2. Annual VMT for project operations are based information found in Appendix C, *Air Quality and Greenhouse Gas Modeling*.

Summary

As described previously, natural gas use would not be required during construction and would be limited to only the proposed hotel restaurant for operation of the proposed project. Electricity and liquid fuels use during construction and operation of the proposed project would not be considered inefficient, wasteful, or unnecessary. Therefore, impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

ENE-2 Project development would not conflict with a State or local plan for renewable energy or energy efficiency.

California Renewable Portfolio Standard Program

Electrical needs to the project site would be provided by PCE. The statewide RPS requirements do not directly apply to individual development projects, but to utilities and energy providers such as PCE, whose

[17] W-Trans, 2022, July 1, Traffic Operations Analysis for the 501 Industrial Road Project Draft Report.

compliance RPS requirements would contribute to the state objective of transitioning to renewable energy. The PCE obtains electricity from conventional and renewable sources throughout California. For 2022, electricity under PCE's ECOplus option is projected to be 53.4 percent from renewable energy sources and 46.6 percent from large hydroelectric generators.[18] The proposed project would be required to adhere to applicable energy efficiency code requirements, and would include a rooftop solar system. The net increase in power demand associated with the proposed project is anticipated to be within the service capabilities of PCE and would not impede PCE's ability to implement California's renewable energy goals. Therefore, the proposed project would not obstruct implementation of the California RPS Program.

San Carlos CMAP

A consistency analysis with the proposed project to the relevant policies in the CMAP is shown in Table 4.4-4, *Consistency with the City of San Carlos Mitigation and Adaptation Strategy.* As identified in the table below, the proposed project would be consistent with the strategies in the City of San Carlos CMAP.

TABLE 4.4-4 CONSISTENCY WITH THE CITY OF SAN CARLOS CLIMATE MITIGATION AND ADAPTATION STRATEGIES

Applicable Strategies	Consistency with Applicable Strategies
Energy Use	
5. Advance electrification through local amendments to the California Building Code.	**Consistent:** The proposed project would be built to meet the latest Building Energy Efficiency Standards and CALGreen. The current CALGreen is included by reference in SCMC Section 15.04.125.
6. Continue to support and increase participation in rooftop and on-site solar energy systems in the community and at City facilities.	**Consistent:** The proposed project would install a rooftop PV system.
7. Continue to support and promote PCE as the community's official electricity provider with a goal to provide 100 percent carbon-free, renewable energy by 2025.	**Consistent:** The proposed project would utilize PCE for all electrical needs. Except for the proposed hotel restaurant, which would have connection to natural gas, the proposed project would be all-electric and would also include a rooftop PV system.
Transportation and Land Use	
12. Prioritize bicycling and walking as safe, practical, and attractive travel options citywide, as directed by the Bicycle and Pedestrian Master Plan.	**Consistent:** The proposed project would provide 20 short-term bicycle parking located near the building entrance, project driveway, and courtyard; 10 long-term bicycle parking located in a secure bicycle storage room; and employee showers, changing rooms, and lockers. It would also provide new sidewalks landscaped with street trees along the project's frontage on Industrial Road, and site circulation designed to provide safe pedestrian connections to and around the project site, including a textured drive aisle in front of the building entrance to reduce vehicle speed, and walkways between the building and sidewalk along Industrial Road.
15. Support improvements to public transit routes, services, and facilities to facilitate longer distance travel.	**Consistent:** Overall, it is not anticipated that transit ridership generated by the proposed project would be substantial enough to require expanded transit services. While the proposed project would not include installation of additional public transit facilities (e.g., bus stops), its Transportation Demand Management (TDM) Plan would include alternative commute subsidies for hotel employees to incentivize and encourage public transit use. The proposed project site is approximately 0.5 mile northeast of the San Carlos

[18] Peninsula Clean Energy, 2021. Power Mix, https://www.peninsulacleanenergy.com/wp-content/uploads/2022/09/Peninsula-Clean-Energy-Power-Mix-Power-Content-Label-2021.pdf,accessed July 20, 2023.

TABLE 4.4-4 CONSISTENCY WITH THE CITY OF SAN CARLOS CLIMATE MITIGATION AND ADAPTATION STRATEGIES

Applicable Strategies	Consistency with Applicable Strategies
	Caltrain Station. Additionally, there are bus stops for four San Mateo County Transit District (SamTrans) fixed bus routes within 0.5 mile of the project site.
17. Reduce community-wide transportation-related emissions per resident and employee, with an emphasis on reductions from existing and new development in the city's core commercial, office, and industrial areas, including development on the east side.	**Consistent:** The proposed project would implement a TDM Plan, which would contribute to reducing project-related vehicle trips by 32 percent. The City of San Carlos requires development projects to implement a TDM Plan to reduce project trip generation. Furthermore, as discussed under impact discussion TRAN-2 of Chapter 4.11, *Transportation*, of this Draft EIR, the proposed project's VMT would be below the City of San Carlos SB 743 VMT threshold.

Source: City of San Carlos, 2021, Climate Mitigation and Adaptation Plan.

As described previously and in Table 4.4-4, the proposed project would not conflict with California RPS Program or City of San Carlos CMAP. Therefore, the impact would be *less than significant*.

Significance without Mitigation: Less than significant.

ENE-3 The project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to energy conservation and renewable energy.

The areas considered for cumulative impacts to electricity and natural gas supplies are the service areas of PCE and PG&E. Th cumulative projects listed in Table 4-1, *Cumulative Development Projects*, in Chapter 4, *Environmental Analysis*, of this Draft EIR, that are in the PCE and PG&E service areas, would be required to comply with the Building Energy Efficiency Standards and CALGreen, which would contribute to minimizing wasteful energy consumption and promoting renewable energy sources. As discussed in impact discussion ENE-1, construction- and operation-related energy impacts caused by the proposed project would be less than significant and would not be considered inefficient, wasteful, or unnecessary. The proposed project would therefore not contribute to any cumulative energy impacts when considered together with cumulative development projects. Therefore, cumulative impacts would be *less than significant*, and project impacts would not be cumulatively considerable.

Significance without Mitigation: Less than significant.

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4.5 GEOLOGY AND SOILS

This chapter describes existing geological conditions and hazards on the project site and evaluates geologic hazards to people and structures that would result from the proposed project. A summary of the relevant regulatory setting and existing conditions is followed by a discussion of the proposed project impacts and cumulative impacts. The analysis in this section is based in part on the *Geotechnical Engineering Report for the Proposed Hotel Indigo*, 501 Industrial Road, San Carlos, California, Professional Service Industries, Inc. (PSI), October 21, 2019. This report is herein referred to as the "Project Geotechnical Report" and is included in Appendix D, *Geotechnical Report*, of this Draft Environmental Impact Report (EIR).

4.5.1 ENVIRONMENTAL SETTING

4.5.1.1 REGULATORY FRAMEWORK

Federal Regulations

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 other researchers. The Paleontological Resources Preservation 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 the Act is to prevent the construction of buildings used for human occupancy on top of the traces of active faults. It was passed into law in the wake of the February 1971 magnitude (M_w) 6.5 San Fernando (Sylmar) Earthquake that resulted in over 500 million dollars in property damage and 65 deaths.[3] Although this Act addresses the hazards associated with surface fault rupture, it does not address other earthquake-related hazards, such as seismically induced ground shaking, liquefaction, or landslides.

[1] U.S. Department of the Interior, May 2000, *Fossils on Federal & Indian Lands*, https://www.blm.gov/sites/blm.gov/files/programs_paleontology_quick%20links_Assessment%20of%20Fossil%20Management%20on%20Federal%20&%20Indian%20Lands,%20May%202000.pdf, accessed February 10, 2022.

[2] Originally titled the Alquist-Priolo Special Studies Zones Act until renamed in 1993, California Public Resources Code, Division 2, Chapter 7.5, Section 2621, The entire Act can be found at California Public Resources Code Section 2690 et seq.

[3] Southern California Earthquake Data Center, 2022, San Fernando Earthquake https://scedc.caltech.edu/earthquake/sanfernando1971.html, accessed on February 10, 2022.

This Act requires the State Geologist to establish regulatory zones (formerly known as Special Studies Zones, now referred to as Earthquake Fault Zones) around the surface traces of mapped active faults, and to publish appropriate maps that depict these zones.[4] The maps are made publicly available and distributed to all affected cities, counties, and State agencies for their use in planning and controlling new or renewed construction. In general, the law prohibits construction within 50 feet of an active fault trace.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act,[5] which was passed by the California legislature in 1990, addresses earthquake hazards related to liquefaction and seismically induced landslides. Under the Act, seismic hazard zones are mapped by the State Geologist in order to assist local governments in land use planning. The 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."[6] 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."[7]

California Building Code

The California Building Code (CBC), known as the California Building Standards Code, is found in Title 24 of the California Code of Regulations. The CBC incorporates the International Building Code, a model building code adopted across the U.S. Current State law requires every local agency enforcing building regulations, such as cities and counties, to adopt the provisions of the CBC within 180 days of its publication. The publication date of the CBC is established by the California Building Standards Commission. The CBC is updated every three years, and the current 2022 version took effect January 1, 2023. Local Regulations

San Carlos 2030 General Plan

The Community Safety and Services Element of the San Carlos 2030 General Plan provides information about risks in San Carlos from natural and human-made hazards and contains and goals, policies, and actions designed to protect the community and its property from these hazards. The San Carlos 2030 General Plan policies relevant to geology and seismic hazards are listed in Table 4.5-1, *City of San Carlos 2030 General Plan Policies Relevant to Geology and Soils*.

[4] California Geological Survey, 2019, Alquist-Priolo Earthquake Fault Zones, https://www.conservation.ca.gov/cgs/alquist-priolo#:~:text=Alquist%2DPriolo%20earthquake%20fault%20zones%20are%20regulatory%20zones%20surrounding%20the,earth's%20surface%20defining%20a%20fault.)&text=An%20active%20fault%2C%20for%20the,in%20the%20last%2011%2C000%20years, accessed February 10, 2022.

[5] California Public Resources Code, Division 2, Chapter 7.8, Section 2690 et seq.

[6] California Public Resources Code, Division 2, Chapter 7.8, Section 2691(c).

[7] California Public Resources Code, Division 2, Chapter 7.8, Section 2697(a).

TABLE 4.5-1 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO GEOLOGY AND SOILS

Policy Number	Policy Text
Chapter 8, Community Safety and Services (CSS) Element	
Policy CSS-1.1	The City Building Official shall verify geotechnical and soils reports for development in areas where potentially-serious geologic risks exist. These reports shall address the degree of hazard, design parameters for the project based on the hazard and appropriate mitigation measures. Based on the findings of these reports, the City shall require that new structures are designed and built to withstand the effects of seismically-induced ground failure.
Policy CSS-1.2	Prohibit structural development in known areas where seismic and geological hazards cannot be mitigated.
Policy CSS-1.3	Continue to monitor and enforce mitigation measures to reduce risk for projects where geological and seismic hazards can be mitigated.
Policy CSS-1.4	Enforce requirements of the Alquist-Priolo Special Studies Zones Act should any fault traces in San Carlos be discovered and prove to be active or potentially active.
Policy CSS-1.5	Continue to incorporate seismic risk analysis into the City's ongoing building inspection program through thorough review of projects by plan check and field inspections.

Source: City of San Carlos, 2009, *2030 General Plan*.

San Carlos Municipal Code

The San Carlos Municipal Code (SCMC) contains all ordinances for the city. The SCMC is organized by Title, Chapter, and Section.

Chapter 15.04, *Technical Building Code*, of Title 15, *Buildings and Construction*, adopts the CBC by reference with specified modifications. Chapter 15.04 recognizes that the city is located in a seismically active area very close to the San Andreas Fault, one of the most significant earthquake fault zones in the State of California. This chapter also recognizes that there is the moderate potential for erosion and slope instability/landslides in approximately fifty percent of the city and that expansive soils or bedrock varies in significance in over two-thirds of the entire city.

Chapter 12.08, *Grading and Excavations*, of Title 12, *Streets, Sidewalks, and Public Places*, provides the minimum standards to protect property, preserve natural beauty and enhance water quality, and control erosion, sedimentation, increases in surface runoff and related environmental damage caused by construction-related activities, by regulating and controlling the design, construction, quality of materials, use, location and maintenance of grading, excavating and fill, land disturbances, land fill and soil storage in connection with the clearing and grading of land for construction, within the city.

For a complete discussion on soil erosion prevention as it relates to water quality, see Chapter 4.8, *Hydrology and Water Quality*, of this Draft EIR.

4.5.1.2 EXISTING CONDITIONS

Regional Setting

The City of San Carlos is within the Coast Ranges geomorphic province, which consists of northwest-trending mountain ranges and valleys, and extends from the Santa Ynez River Valley in Santa Barbara

County in southern California to the Oregon border. The northern and southern Coast Ranges are separated by a depression containing the San Francisco Bay.[8] The San Francisco Peninsula at the northern end of the Santa Cruz Mountains, separating the Pacific Ocean from the San Francisco Bay, represents one mountain range within this province. Within the San Francisco Bay Area, most of the Coast Ranges province developed on a basement of tectonically mixed Cretaceous- and Jurassic-age (70 to 200 million years old) rocks of the Franciscan Complex. These subsurface rocks are overlain by younger sedimentary and volcanic rocks that reflect geologic conditions for the last million years. Due to the lateral and vertical movement on the splays of the San Andreas Fault system and other secondary faults, the Coast Ranges exhibit a dominant northwest-oriented structural and topographic trend. This trend reflects the boundary between the North American plate to the east and the Pacific plate to the west. Nearly spanning the length of California, the San Andreas Fault is the dominant structure in the regional fault system and can produce the highest magnitude earthquakes, although many sub-parallel or branch faults are equally active and are capable of generating large earthquakes. These faults are dominated by right-lateral movement, but an increasingly large amount of thrust faulting resulting from compression across the system has been identified.

Site Geology

The project site is located near the southwestern edge of San Francisco Bay on the San Mateo Plain. Based on the Project Geotechnical Report, the project site is underlain by artificial fill consisting of loose to very well consolidated gravel, sand, silt, clay, rock fragments, organic matter, and man-made debris.[9] The artificial fill was observed to have a depth of 11 feet on the project site but is noted to have a variable thickness that may exceed 100 feet in places.[10]

Seismic Hazards

Faults

The San Francisco Bay Area is one of the most seismically active areas in the U.S., and the United States Geological Survey's (USGS) Working Group on California Earthquake Probabilities 2007 estimates that there is a 63-percent chance of at least one magnitude 6.7 or greater earthquake in the region between 2007 and 2036. Historically, as documented by the damage that occurred in San Francisco and Oakland during the 1989 Loma Prieta earthquake that had an epicenter approximately 50 miles south of San Francisco, even earthquakes at considerable distances away can cause significant damage.

The project site is approximately 4.4 miles southwest of the San Andreas Fault where the fault trends northwesterly through the Upper Crystal Springs Reservoir. Distances to other faults are identified in Table

[8] California Geological Survey, 2002, *Note 36: California Geomorphic Provinces*, https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf, accessed March 16, 2022.

[9] Professional Service Industries, October 21, 2019, *Geotechnical Engineering Report for the Proposed Hotel Indigo, 501 Industrial Road, San Carlos, California*.

[10] Professional Service Industries, October 21, 2019, *Geotechnical Engineering Report for the Proposed Hotel Indigo, 501 Industrial Road, San Carlos, California.*

4.5-2, *Approximate Fault Distances*. Faults that are capable of generating significant earthquakes are typically associated with well-defined areas of crustal movement, which trend northwesterly.

TABLE 4.5-2 APPROXIMATE FAULT DISTANCES

Fault Name	Distance from the Project Site (miles)
San Andreas (1906)	4.4
Monte Vista-Shannon	9.6
San Gregorio	12.1

Sources: PSI, 2019, *Geotechnical Engineering Report for the Proposed Hotel Indigo, 501 Industrial Road, San Carlos, California,* dated October 21, 2019, and USGS, 2022, U.S. Quaternary Faults, https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf.

Additionally, as shown on Figure 8-2, *San Carlos Area Faults*, in Chapter 8, *Community Safety and Services Element*, of the San Carlos 2030 General Plan, there are no faults on the project site.[11] According to the Alquist-Priolo Special Studies Zones Act of 1972 (revised 1994), active faults are those that have been shown to display surface rupture during the last 11,000 years (i.e., Holocene time). According to the California Department of Conservation and the Association of Bay Area Governments (ABAG), the project site is not currently situated within a mapped Earthquake Fault Zone.[12,13]

As shown in Table 4.5-2, several significant faults are within approximately 12 miles of the project site. As stated previously, the site is not located within a State-designated Alquist Priolo Earthquake Fault Zone. Furthermore, the Project Geotechnical Report states that no known surface expression of fault traces exist within the site boundaries; therefore, fault rupture is not known to be a significant geologic hazard at the site.

Ground Shaking

The energy released by an earthquake is measured as moment magnitude (Mw). The Mw scale is logarithmic; therefore, each one-point increase in magnitude represents a ten-fold increase in amplitude of the waves as measured at a specific location and a 32-fold increase in energy. That is, a magnitude 7 earthquake produces 100 times (10 x 10) the ground motion amplitude of a magnitude 5 earthquake. The site is subject to a Maximum Magnitude Event – that is, the maximum earthquake that appears capable of occurring based on current geological understanding of the region – of 7.9 Magnitude along the San Andreas Fault.

Earthquakes of Mw 6.7+ magnitude can create ground accelerations in bedrock and in stiff unconsolidated sediments severe enough to cause major damage to structures and foundations that are not designed specifically with earthquake reinforcements and to underground utility lines without sufficient flexibility, to accommodate seismic ground motion.

[11] City of San Carlos, 2009, *San Carlos 2030 General Plan,* Figure 8-2, *San Carlos Area Faults*, page 186.

[12] California Department of Conservation, 2019, Earthquake Zones of Required Investigation, https://maps.conservation.ca.gov/cgs/EQZApp/, accessed April 15, 2022.

[13] Association of Bay Area Governments, March 2020, Hazard Viewer, https://abag.ca.gov/our-work/resilience/data-research/hazard-viewer, accessed March 17, 2022.

Notable historic earthquakes on the active faults within 30 miles of the project site include the following:[14]

- San Andreas Fault
  - San Francisco, 1906, magnitude 8.25
  - Loma Prieta (near Santa Cruz), 1989, magnitude 7.1
- Calaveras Fault
  - Morgan Hill (Santa Clara County), 1911, magnitude 6.5
  - Morgan Hill, 1984, magnitude 6.1
  - San Jose, 2007, magnitude 5.6

According to ABAG, the project site, as is the case for most sites within the Bay Area, is at risk of severe to violent earthquakes that can cause strong ground shaking.[15]

Liquefaction

Liquefaction generally occurs as a result of strong ground shaking during earthquakes in areas where granular sediment or fill material occur with high moisture content in or immediately below it. The ground shaking transforms the material from a solid state to a temporary liquid state. Liquefaction is a serious hazard because buildings in areas that experience liquefaction may sink or suffer major structural damage. Liquefaction is most often triggered by seismic ground shaking, but can also be due to improper grading, landslides, or other factors.

Liquefaction potential within San Carlos ranges from very low to very high. Liquefaction potential in the western hill areas is low, while the flatlands and Bay margins area have high liquefaction potential. As shown on Figure 8-3, *Liquefaction Potential*, in Chapter 8, *Community Safety and Services Element* of the San Carlos General Plan 2030, the project site is in an area of the city with a very high liquefaction potential.

According to ABAG, the project site is located in a zone with very high earthquake liquefaction zone.[16] Based on the Project Geotechnical Report, the project site is underlain by artificial fill and groundwater was observed at 7.5 feet below ground surface, although based on pore pressures, may exist at 6 feet below ground surface. Based on the computer analysis of the subsurface profile created from on-site Cone Penetrometer Testing, the Project Geotechnical Report concludes that there are thin layers of liquefaction-susceptible soils beneath the site but, due to the thickness of non-liquefiable soils above them, the site is at a low potential for loss of bearing or sand boils. However, there is potential for seismically induced settlement of surface soils due to liquefaction of deeper soils from about 0.3 to 3 inches, with differential settlements estimated up to about 1.5 inches over a span of approximately 40

[14] San Joaquin Valley Geology, 2021, Historic Earthquakes of California, http://www.sjvgeology.org/geology/earthquakes.html, accessed March 18, 2022.

[15] Association of Bay Area Governments, March 2020, Hazard Viewer, https://abag.ca.gov/our-work/resilience/data-research/hazard-viewer, accessed March 17, 2022.

[16] Association of Bay Area Governments, March 2020, Hazard Viewer, https://abag.ca.gov/our-work/resilience/data-research/hazard-viewer, accessed March 17, 2022.

feet. These settlement estimates are within tolerable limits for use with conventional shallow footings as noted by California Geological Survey Special Publication 117A.[17]

Lateral Spreading

Lateral spreading is the horizontal or lateral ground movement of relatively flat-lying soil deposits towards an open area such as an excavation, channel, or open body of water. Typically, lateral spreading is associated with liquefaction of one or more subsurface layers towards the bottom of the exposed slope. It is difficult to analyze and estimate where the first tension crack will form, as failure tends to propagate as block failures.

According to the Project Geotechnical Report, the site has low potential for lateral spreading as the potentially liquefiable soil beneath the site is of limited thickness, and the absence of a free face.[18]

Landslides

Landslides are the downslope movement of geologic materials. Slope failures in the form of landslides are common during strong seismic shaking in areas of steep hills. The Existing Landslide Map for San Mateo County does not identify any landslides within the immediate vicinity of the project site.[19] Additionally, both the Existing Landslide Map and the ABAG map show that the project site is within an area of "flat land."[20] The Project Geotechnical Report states that landslides are not a hazard on the project site based on the absence of significant steep slopes on and around the project area.[21]

Other Geologic Hazards

Ground Subsidence

Land subsidence refers to the lowering of the ground surface due to extraction or lowering of water levels or other stored fluids within the subsurface soil pores, or due to seismic activity that can cause alluvial sediments to compact.

Known current and historical instances of land subsidence in California have been recorded by the USGS. The project site is not included in the USGS' areas of known land subsidence. [22] In addition, the project site is in a populous area in which local water districts regularly monitor groundwater levels and, because

[17] California Geological Survey, 2008, Guidelines for Evaluating and Mitigating Seismic Hazards in California, https://www.conservation.ca.gov/cgs/Documents/Program-SHP/SP_117a.pdf, accessed on April 15, 2022.

[18] Professional Service Industries, October 21, 2019, *Geotechnical Engineering Report for the Proposed Hotel Indigo, 501 Industrial Road, San Carlos, California.*

[19] County of San Mateo, 2005, San Mateo County Hazards, Existing Landslides, https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Existing_Landslides.pdf, accessed March 17, 2022.

[20] Association of Bay Area Governments, March 2020, Hazard Viewer, https://abag.ca.gov/our-work/resilience/data-research/hazard-viewer, accessed March 17, 2022.

[21] Professional Service Industries, October 21, 2019, *Geotechnical Engineering Report for the Proposed Hotel Indigo, 501 Industrial Road, San Carlos, California.*

[22] United States Geological Survey, 2022, Areas of Land Subsidence in California, https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html, accessed March 17, 2022.

of this, the project site is not likely to be subject to significant groundwater changes that can lead to subsidence.

Collapsible Soils

Collapsible soils shrink upon being wetted and/or being subject to a load. Cohesionless soils, such as sand and gravel, are susceptible to collapse. The Project Geotechnical Report indicates that the residual soils on-site have a Plasticity Index (PI) as high as 36, indicating highly to very highly plastic, which is indicative of clay. Collapsible soils are associated with dry sandy soils, which were not observed on-site. Therefore, based on the observations of the Project Geotechnical Report, collapsible soils are not likely to be encountered on-site.

Expansive Soils

Expansive soils shrink and harden or swell and soften as the moisture content decreases or increases; the shrinking or swelling can shift, crack, or otherwise cause minor to severe damage to structures built on such soils. Additionally, these soils are subject to slope creep when they are located on hillslopes. When structures are underlain by expansive soils, it is important that foundation systems are capable of resisting or tolerating any potentially damaging soil movements.

As described in the Project Geotechnical Report, although the on-site soils were identified as highly to very highly plastic, the soils only have an Expansion Index (EI) as high as 36, which indicates a low expansive potential.

Paleontological Resources

Paleontological resources (fossils) are the remains and/or traces of prehistoric plant and animal life exclusive of human remains or artifacts. Fossil remains such as bones, teeth, shells, and wood are found in the geologic deposits (rock formations) in which they were originally buried. Paleontological resources represent a limited, non-renewable, sensitive scientific and educational resource.

The potential for fossil remains at a location can be predicted through previous correlations that have been established between the fossil occurrence and the geologic formations within which they are buried. For this reason, knowledge of the geology of a particular area and the paleontological resource sensitivity of rock formations make it possible to predict where fossils will or will not be encountered.

To identify any known paleontological resources within or in the vicinity of the project site, a record search of the online database maintained by the University of California Museum of Paleontology (UCMP) was conducted on April 15, 2022. The UCMP online locality user records search did not indicate the

presence of paleontological resources based on the geological features located at the project site.[23] The nearest known paleontological sites are located to the southwest near Crystal Springs Reservoir.[24]

4.5.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant impact on geology and soils if it would:

1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    - 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.
    - Strong seismic ground shaking.
    - Seismic-related ground failure, including liquefaction.
    - Landslides.
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.
4. Be located on expansive soil, as defined in Section 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 cumulative impacts with respect to geology and soils.

[23] University of California Museum of Paleontology, 2022, Specimen Search, https://ucmpdb.berkeley.edu/, accessed April 15, 2022.

[24] Redwood City, May 2010, *Redwood City New General Plan Draft EIR*, https://www.redwoodcity.org/home/showpublisheddocument?id=5027, accessed April 15, 2022.

4.5.3 IMPACT DISCUSSION

GEO-1	**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.**

Fault Rupture

The San Francisco Bay Area is a seismically active region. Impacts from ground shaking could occur many miles from an earthquake epicenter. The potential severity of ground shaking depends on many factors, including the distance from the originating fault, the earthquake magnitude, and the nature of the earth materials beneath a given site. There is no identified fault-rupture hazard zone as defined by the Alquist-Priolo Special Studies Zones Act within the project site.[25] Therefore, impacts from fault rupture are unlikely and are *less than significant*.

Significance without Mitigation: Less than significant.

Seismic Ground Shaking

The project site is within the San Francisco Bay region, which experiences frequent earthquakes. Although it is not on an earthquake fault or in an earthquake fault zone, the likelihood of the project site experiencing ground shaking due to nearby faults is high, as throughout much of the region. Development of the project site must be designed in compliance with seismic requirements of the CBC, Title 24 CCR criteria, and the SCMC. Although the proposed project would not exacerbate seismic ground shaking itself, the placement of a new hotel on the project site without adherence to appropriate, project-specific seismic recommendations would exacerbate the risks associated with earthquake events. Therefore, impacts from strong seismic ground shaking would be *significant* without mitigation.

Impact GEO-1: The proposed project would result in the placement of a new building in an area susceptible to ground shaking, potentially resulting in significant loss, injury, or death.

> Mitigation Measure GEO-1: Project construction shall adhere to the recommendations of the October 21, 2019, Professional Service Industries G*eotechnical Engineering Report for the Proposed Hotel Indigo*, 501 Industrial Road, San Carlos, California (Project Geotechnical Report) which provides preliminary recommendations for site preparation, engineered fill, excavation, foundations, concrete

[25] California Geological Survey, 2019, Earthquake Zones of Required Investigation, https://maps.conservation.ca.gov/cgs/EQZApp/, accessed April 15, 2022.

slabs, below-grade walls, retaining walls, drainage, pavement, corrosivity, and construction monitoring.

Significance with Mitigation: Less than significant.

Liquefaction

The project site is within the San Mateo 7.5 Minute Quadrangle Seismic Hazard Zone map and is in an area designated as susceptible to liquefaction. However, based on the computer analysis of the subsurface profile created from on-site Cone Penetrometer Testing, the Project Geotechnical Report concludes that there are thin layers of liquefaction-susceptible soils beneath the project site but, due to the thickness of non-liquefiable soils above them, the site is at a low potential for loss of bearing or sand boils. However, there is potential for seismically induced settlement of surface soils due to liquefaction of deeper soils from about 0.3 to 3 inches, with differential settlements estimated up to about 1.5 inches over a span of approximately 40 feet. These settlement estimates are within tolerable limits for use with conventional shallow footings as noted by California Geological Survey Special Publication 117A.[26] Therefore, the proposed project would not subject people or structures to substantial liquefaction hazards, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

Landslides

Landslides are a type of erosion in which masses of earth and rock move down slope as a single unit. Susceptibility of slopes to landslides and lurching (earth movement at right angles to a cliff or steep slope during ground shaking) depend on several factors that are usually present in combination—steep slopes, condition of rock and soil materials, presence of water, formational contacts, geologic shear zones, and seismic activity. The project site and adjacent properties are flat and exhibit no substantial elevation changes or unusual geographic features. In the absence of significant ground slopes, the potential for landslides is considered negligible. Therefore, impacts from landslides would be *less than significant*.

Significance without Mitigation: Less than significant.

GEO-2 The proposed project would not result in substantial soil erosion or the loss of topsoil.

Soils are particularly prone to erosion during the grading phase of development, especially during heavy rains. Construction projects of one acre or more are regulated under the General Construction Permit, Order No. 2012-0006-DWQ, issued by the State Water Resources Control Board in 2012. Projects obtain coverage by developing and implementing a Stormwater Pollution Prevention Plan estimating sediment risk from construction activities to receiving waters and specifying BMPs that would be used by the

[26] California Geological Survey, 2008, *Guidelines for Evaluating and Mitigating Seismic Hazards in California*, https://www.conservation.ca.gov/cgs/Documents/Program-SHP/SP_117a.pdf, accessed on April 15, 2022.

project to minimize pollution of stormwater. The use of a Storm Water Pollution Prevention Plan (SWPPP), which specifies BMPs for temporary erosion controls, reduces the potential for erosion during construction period activities. Standard erosion control measures would be implemented as part of a SWPPP for proposed development within the project site to minimize the risk of erosion or sedimentation during construction. The SWPPP must include an erosion control plan that prescribes measures such as phasing grading, limiting areas of disturbance, designating restricted-entry zones, diverting runoff from disturbed areas, protective measures for sensitive areas, outlet protection, and provisions for revegetation or mulching. A comprehensive discussion of water quality requirements can be found in Chapter 4.8, *Hydrology and Water Quality*, of this Draft EIR.

Development of the proposed project is required to be designed in compliance with existing regulations, including the preparation and submittal of a SWPPP and identification of project- and site-specific requirements to ensure compliance with established SCMC and CBC standards regulating grading, building construction, and erosion. Therefore, potential erosion impacts during construction and operation impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

GEO-3	**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.**

Landslides are a type of erosion in which masses of earth and rock move down slope as a single unit. Susceptibility of slopes to landslides and lurching (earth movement at right angles to a cliff or steep slope during ground shaking) depend on several factors that are usually present in combination—steep slopes, condition of rock and soil materials, presence of water, formational contacts, geologic shear zones, and seismic activity. The project site and adjacent properties are flat and exhibit no substantial elevation changes or unusual geographic features. In the absence of significant ground slopes, the potential for landslides is considered negligible.

As stated in impact discussion GEO-1, although the project site is within a zone of required investigation for liquefaction, the proposed project would not subject people or structures to substantial liquefaction or settlement hazards.

The Project Geotechnical Report indicates that the residual soils on-site have a Plasticity Index (PI) as high as 36, indicating highly to very highly plastic, which is indicative of clay. Collapsible soils are associated with dry sandy soils, which were not observed on-site. Therefore, based on the observations of the Project Geotechnical Report, collapsible soils are not likely to be encountered on-site.

As discussed in Section 4.5.1.2, *Existing Conditions*, the project site is not included in the USGS' areas of known land subsidence.[27] In addition, the project site is in a populous area in which local water districts regularly monitor groundwater levels and, because of this, the project site is not likely to be subject to significant groundwater changes that can lead to subsidence. Therefore, impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

GEO-4	**The proposed project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.**

Expansive soils swell when they become wet and shrink when they dry out, resulting in the potential for cracked building foundations and, in some cases, structural distress of the buildings themselves. As described in the Project Geotechnical Report, although the on-site soils were identified as highly to very highly plastic, the soils only have an Expansion Index (EI) as high as 36, which indicates a low expansive potential. Therefore, impacts are anticipated to be *less than significant* as a result of the proposed project.

Significance without Mitigation: Less than significant.

GEO-5	**The proposed project would not involve the use of septic tanks or alternative wastewater disposal systems.**

The proposed project would utilize the local sewer system and would not involve the use of septic tanks or alternative wastewater disposal systems. Should project dewatering be necessary, the use of aboveground Baker Tanks would be utilized in accordance with San Francisco Bay Water Quality Control Board discharge requirements. Therefore, a *less-than-significant* impact would result from the proposed project.

Significance without Mitigation: Less than significant.

GEO-6	**The proposed project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.**

A paleontological resource is a natural resource characterized as faunal or floral fossilized remains but may also include specimens of nonfossil material dating to any period preceding human occupation. These resources are valued for the information they yield about the history of the earth and its past ecological settings. The resources are found in geologic strata conducive to their preservation, typically sedimentary formations. Often, they appear as simply small outcroppings visible on the surface; other times they are below the ground surface and may be encountered during grading.

[27] United States Geological Survey, Areas of Land Subsidence in California, https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html, accessed March 17, 2022.

The Project Geotechnical Report states that the project site is underlain by artificial fill material of variable thickness from 11 to greater than 100 feet. Therefore, paleontological resources or unique geologic features are unlikely to be encountered at the project site. Nevertheless, a remote possibility exists that ground-disturbing activities associated with construction of the proposed project could uncover paleontological resources of potential scientific significance and other unique geologic features that are not recorded. Such ground-disturbing construction associated with development permitted under the proposed project could cause damage to, or destruction of, paleontological resources or unique geologic features. This represents a potentially *significant* impact.

Impact GEO-6: The proposed project could cause damage to, or destruction of, unknown paleontological resources or unique geologic features due to ground-disturbing construction.

Mitigation Measure GEO-6: In the event that fossils or fossil-bearing deposits are discovered during construction, excavations within 50 feet of the find shall be temporarily halted or diverted. The contractor shall notify a qualified paleontologist to examine the discovery. The paleontologist shall document the discovery, as needed, in accordance with Society of Vertebrate Paleontology standards, evaluate the potential resource, and assess the significance of the finding under the criteria set forth in California Environmental Quality Act (CEQA) Guidelines Section 15064.5. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the project proponent determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the proposed project based on the qualities that make the resource important. The plan shall be submitted to the City of San Carlos for review and approval prior to implementation.

Significance with Mitigation: Less than significant.

GEO-7 The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to geology and soils.

The cumulative setting for geologic resources is typically site specific. Although the project site may be subject to potentially significant hazards of strong ground shaking and soil erosion—mandatory compliance with State and City regulations and project mitigation measures would ensure these impacts would be less than significant.

The identified cumulative development listed in Table 4-1, *Cumulative Development Projects*, in Chapter 4, *Environmental Analysis*, 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 project site to avoid impacts to geologic and paleontological resources from the proposed project, would not contribute to a cumulative increase in hazards in the immediate vicinity of the project site. Therefore, cumulative impacts associated with geology and soils would be *less than significant*.

Significance without Mitigation: Less than significant.

4.6 GREENHOUSE GAS EMISSIONS

This chapter evaluates the potential for the proposed project to cumulatively contribute to greenhouse gas (GHG) emissions impacts. Because no single project is large enough individually to result in a measurable increase in global concentrations of GHG emissions, global warming impacts of a project are considered on a cumulative basis. This chapter is based on the methodology proposed by the Bay Area Air Quality Management District (BAAQMD or Air District) for project-level review. Transportation sector emissions are based on trip generation provided by W-Trans (see Appendix H, *Transportation*, of this Draft Environmental Impact Report [EIR]). GHG emissions modeling is included in Appendix C, *Air Quality and Greenhouse Gas Modeling*, of this Draft EIR.

Terminology

The following are definitions for terms used throughout this section:

- **Greenhouse gases (GHG).** Gases in the atmosphere that absorb infrared light, thereby retaining heat in the atmosphere and contributing to a greenhouse effect.
- **Global warming potential (GWP).** Metric used to describe how much heat a molecule of a GHG absorbs relative to a molecule of carbon dioxide (CO_2) over a given period of time (20, 100, and 500 years). CO_2 has a GWP of 1.
- **Carbon dioxide-equivalent (CO_2e)**. The standard unit to measure the amount of GHGs in terms of the amount of CO_2 that would cause the same amount of warming. CO_2e is based on the GWP ratios between the various GHGs relative to CO_2.
- **$MTCO_2e$.** Metric ton of CO_2e.
- **$MMTCO_2e$.** Million metric tons of CO_2e.

4.6.1 ENVIRONMENTAL SETTING

4.6.1.1 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 (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHGs identified by the

IPCC that contribute to global warming to a lesser extent are nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.[1,2,3]

The major GHGs are briefly described below.

- **Carbon dioxide (CO_2)** 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 (i.e., sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH_4)** 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 (N_2O)** 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 a stronger greenhouse effect than others. These are referred to as high GWP gases. The GWP of applicable GHG emissions are shown in Table 4.6-1, *GHG Emissions and Their Relative Global Warming Potential Compared to CO_2*. The GWP is used to convert GHGs to CO_2-equivalence (CO_2e) 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 IPCC's Fourth Assessment Report (AR4) GWP values for methane (CH_4), a project that generates 10 metric tons (MT) of CH_4 would be equivalent to 250 MT of CO_2.[4]

[1] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant, but 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. According to the California Air Resources Board, 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 . However, State and national GHG inventories do not yet 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, Third Assessment Report: Climate Change 2001, New York: Cambridge University Press.

[4] CO_2-equivalence is used to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. The global warming potential of a GHG is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

TABLE 4.6-1 GHG EMISSIONS AND THEIR RELATIVE GLOBAL WARMING POTENTIAL COMPARED TO CO_2

GHGs	Fourth Assessment Report (AR4) Global Warming Potential Relative to CO_2[a]	Fifth Assessment Report (AR5) Global Warming Potential Relative to CO_2[a]	Sixth Assessment Report (AR5) Global Warming Potential Relative to CO_2[a]
Carbon Dioxide (CO_2)	1	1	1
Methane[b] (CH_4)	25	28	30
Nitrous Oxide (N_2O)	298	265	273

Notes: GWP values identified in AR4 are used by the Air District to maintain consistency in statewide GHG emissions modeling.
a. Based on 100-year time horizon of the GWP of the air pollutant compared to CO_2.
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 CO_2 is not included.
Sources: 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; Intergovernmental Panel on Climate Change. 2022, February 2022. Sixth Assessment Report: Climate Change 2022. Impacts, Adaptation and Vulnerability, Summary for Policymakers. https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf.

Human Influence on Climate Change

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

The recent IPCC Sixth Assessment Report (AR6) summarizes the latest scientific consensus on climate change. It finds that atmospheric concentrations of CO_2 have increased by 50 percent since the Industrial Revolution and continue to increase at a rate of two parts per million each year. By the 2030s, and no later than 2040, the world will exceed 1.5°C warming.[5] 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.[6] In the past, gradual changes in the earth's temperature changed the distribution of species, availability of water, etc. However, 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.[7]

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

[5] Intergovernmental Panel on Climate Change, 2022, February 2022, *Sixth Assessment Report: Climate Change 2022. Impacts, Adaptation and Vulnerability, Summary for Policymakers*. https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf, accessed on July 19, 2023.

[6] California Climate Action Team, 2006, Climate Action Team Report to Governor Schwarzenegger and the Legislature.

[7] Intergovernmental Panel on Climate Change, 2007, *Fourth Assessment Report: Climate Change 2007*, New York: Cambridge University Press.

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, on the magnitude of the trends for:

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

There is at least a greater than 50 percent likelihood that global warming will reach or exceed 1.5°C in the near-term, even for the very low GHG emissions scenario.[8] Climate change is already impacting California and will continue to affect it for the foreseeable future. For example, the average temperature in most areas of California is already 1°F higher than historical levels, and some areas have seen average increases in excess of 2°F.[9] The California Fourth Climate Change Assessment identifies the following climate change impacts under a business-as-usual (BAU) scenario, in which no new actions are taken to curb GHG emissions:

- Annual average daily high temperatures in California are expected to rise by 2.7°F by 2040, 5.8°F by 2070, and 8.8°F by 2100 compared to observed and modeled historical conditions. These changes are statewide averages. Heat waves are projected to become longer, more intense, and more frequent.
- Warming temperatures are expected to increase soil moisture loss and lead to drier seasonal conditions. Summer dryness may become prolonged, with soil drying beginning earlier in the spring and lasting longer into the fall and winter rainy season.
- High heat increases the risk of death from cardiovascular, respiratory, cerebrovascular, and other diseases.
- Droughts are likely to become more frequent and persistent through 2100.[10]

[8] Intergovernmental Panel on Climate Change, 2022, February 2022, *Sixth Assessment Report: Climate Change 2022. Impacts, Adaptation and Vulnerability, Summary for Policymakers*. https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf, accessed on July 19, 2023.

[9] California Office of Emergency Services, 2020, June, California Adaptation Planning Guide. https://www.caloes.ca.gov/HazardMitigationSite/Documents/CA-Adaptation-Planning-Guide-FINAL-June-2020-Accessible.pdf, accessed July 19, 2023.

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

- Climate change is projected to increase the strength of the most intense precipitation and storm events affecting California.
- Mountain ranges in California are already seeing a reduction in the percentage of precipitation falling as snow. Snowpack levels are projected to decline significantly by 2100 due to reduced snowfall and faster snowmelt. California's water storage system is designed with the expectation that snow will stay frozen for many months, and that as it melts, it will be stored in a series of reservoirs and dams, many of which are used to generate electricity. Changing waterfall patterns therefore impact both water supply and electricity supply.
- Marine layer clouds are projected to decrease, though more research is needed to better understand their sensitivity to climate change.
- Extreme wildfires (i.e., fires larger than 10,000 hectares or 24,710 acres) are expected to occur 50 percent more frequently. The maximum area burned statewide may increase 178 percent by the end of the century. Drought and reduced water supplies can increase wildfire risk.
- Exposure to wildfire smoke is linked to increased incidence of respiratory illness.
- Sea-level rise is expected to continue to increase erosion of beaches, cliffs, and bluffs.[11]

Global climate change risks to California are shown in Table 4.6-2, *Summary of GHG Emissions Risks to California*, and include impacts to public health, water resources, agriculture, coastal sea level, forest and biological resources, and energy.

TABLE 4.6-2 SUMMARY OF GHG EMISSIONS RISK TO CALIFORNIA

Impact Category	Potential Risks
Public Health Impacts	Heat waves will be more frequent, hotter, and longer Poor air quality made worse Higher temperatures increase ground-level ozone (i.e., smog) levels
Water Resource Impacts	Decreasing Sierra Nevada snow pack Challenges in securing adequate water supply Potential reduction in hydropower Loss of winter recreation
Agricultural Impacts	Increasing temperature Increasing threats from pests and pathogens Expanded ranges of agricultural weeds Declining productivity Irregular blooms and harvests
Coastal Sea Level Impacts	Accelerated sea level rise Increasing coastal floods Shrinking beaches Worsened impacts on infrastructure
Forest and Biological Resource Impacts	Increased risk and severity of wildfires Lengthening of the wildfire season

[11] California Office of Emergency Services, 2020, June, California Adaptation Planning Guide. https://www.caloes.ca.gov/HazardMitigationSite/Documents/CA-Adaptation-Planning-Guide-FINAL-June-2020-Accessible.pdf, accessed July 19, 2023.

TABLE 4.6-2 SUMMARY OF GHG EMISSIONS RISK TO CALIFORNIA

Impact Category	Potential Risks
	Movement of forest areas
	Conversion of forest to grassland
	Declining forest productivity
	Increasing threats from pest and pathogens
	Shifting vegetation and species distribution
	Altered timing of migration and mating habits
	Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction 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; California Office of Emergency Services, 2020, June, California Adaptation Planning Guide. https://www.caloes.ca.gov/HazardMitigationSite/Documents/CA-Adaptation-Planning-Guide-FINAL-June-2020-Accessible.pdf, accessed July 19, 2023.

4.6.1.2 REGULATORY FRAMEWORK

This section summarizes key federal, State, regional, and City regulations and programs related to GHG emissions resulting from the proposed project.

Federal Regulations

The United States Environmental Protection Agency (USEPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings did not themselves impose any emission reduction requirements, but allowed the USEPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation.[12]

To regulate GHGs from passenger vehicles, the USEPA was required to issue an endangerment finding.[13] The finding identifies emissions of six key GHGs: CO_2, CH_4, N_2O, HCFCs, PFCs, and SF_6. The first three are applicable to the project's GHG emissions inventory because they constitute the majority of GHG emissions and, per Air District guidance, are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

[12] US Environmental Protection Agency, 2009, EPA: Greenhouse Gases Threaten Public Health and the Environment, https://archive.epa.gov/epapages/newsroom_archive/newsreleases/08d11a451131bca585257685005bf252.html, accessed July 19, 2023.

[13] US Environmental Protection Agency, 2009, EPA: Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, https://www.epa.gov/climate-change/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a, accessed July 19, 2023.

- U.S. 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 $MTCO_2e$ per year are required to submit an annual report.
- Update to Corporate Average Fuel Economy Standards (2017 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 (MPG) 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. On December 21, 2021, under direction of Executive Order 13990 issued by President Biden, the National Highway Traffic Safety Administration (NHTSA) repealed SAFE Vehicles Rule Part One, which had preempted State and local laws related to fuel economy standards. In addition, on March 31, 2022, the NHTSA finalized new fuel standards which will increase fuel efficiency 8 percent annually for model years 2024 to 2025 and 10 percent annually for model year 2026. Overall, the new CAFE standards require a fleet average of 49 MPG for passenger vehicles and light trucks for model year 2026, which will be a 10 MPG increase relative to model year 2021.[14]

State Regulations

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05, Executive Order B-30-15, Executive Order B-55-18, Assembly Bill (AB) 32, Senate Bill (SB) 32, AB 1279, and SB 375:

- Executive Order S-03-05. Executive Order S-03-05, signed June 1, 2005, set the following GHG reduction targets for the state:
  - 2000 levels by 2010.
  - 1990 levels by 2020.
  - 80 percent below 1990 levels by 2050.
- AB 32. Also known as the Global Warming Solutions Act (2006), AB 32 was signed August 31, 2006 in order to reduce California's contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-03-05. Under AB 32, California Air Resources Board (CARB) prepared the *2008 Climate Change Scoping Plan*, the *2014 Climate Change Scoping Plan,* and the *2017 Climate Change Scoping Plan,* which is discussed below.
  - CARB 2008 Scoping Plan. The 2008 Scoping Plan, adopted by CARB on December 11, 2008, identified that GHG emissions in California are anticipated to be 596 $MMTCO_2e$ in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 $MMTCO_2e$ (471 million tons) for the state. To effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary

[14] National Highway Traffic Safety Administration (NHTSA), 2022, April 1, USDOT Announces New Vehicle Fuel Economy Standards for Model year 2024-2026. https://www.nhtsa.gov/press-releases/usdot-announces-new-vehicle-fuel-economy-standards-model-year-2024-2026, accessed on July 20, 2023.

sources that generate more than 25,000 $MTCO_2e$ per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.

- First Update to the Scoping Plan. CARB completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The First Update to the Scoping Plan, adopted May 22, 2014, highlights California's progress toward meeting the near-term 2020 GHG emission reduction goal defined in the 2008 Scoping Plan. As part of the update, CARB recalculated the 1990 GHG emission levels with the updated AR4 GWPs, and the 427 $MMTCO_2e$ 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, are slightly higher at 431 $MMTCO_2e$.[15] As identified in the Update to the Scoping Plan, California is on track to meet the goals of AB 32. The update also addresses the state's longer-term GHG goals in a post-2020 element. The post-2020 element provides a high-level view of a long-term strategy for meeting the 2050 GHG goals, including a recommendation for the State to adopt a midterm target. According to the Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with or exceeds the trajectory created by statewide goals.[16] CARB identified that reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit.[17]

- Executive Order B-30-15. Executive Order 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. Executive Order 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 Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaption strategy, Safeguarding California, in order to ensure climate change is accounted for in state planning and investment decisions.
- SB 32 and AB 197. In September 2016, Governor Brown signed SB 32 and AB 197 into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direction emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

[15] California Air Resources Board, 2014, First Update to the Climate Change Scoping Plan: Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006, https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf, accessed October 28, 2022.

[16] California Air Resources Board, 2014, First Update to the Climate Change Scoping Plan: Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006. https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf, accessed October 28, 2022.

[17] California Air Resources Board, 2014, First Update to the Climate Change Scoping Plan: Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006. https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf, accessed October 28, 2022.

- 2017 Climate Change Scoping Plan Update. Executive Order 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 Climate Change 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 $MMTCO_2e$ for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030.[18]

  California's climate strategy will require contributions from all sectors of the economy, including 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 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 TACs 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 ZEV 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 RPS and doubles energy efficiency savings by 2030.
  - California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
  - Implementing the Short-Lived Climate Pollutant Strategy (SLPS), 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 above, the 2017 Climate Change 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. As part of the recommended actions, CARB recommends statewide targets of no more than 6 $MTCO_2e$ or less

[18] 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 October 28, 2022.

per capita by 2030 and 2 $MTCO_2e$ 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 percent reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40 percent 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 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 vehicle miles traveled (VMT), and direct investments in GHG reductions within the project's region that contribute 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.

The Scoping Plan scenario is set against what is called the business-as-usual (BAU) 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 4.6-3, *2017 Climate Change Scoping Plan Emissions Reductions Gap to Achieve the 2030 GHG Target*. It includes the existing renewables requirements, advanced clean cars, the "10 percent" Low Carbon Fuel Standard (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, the known commitments are expected to result in emissions that are 60 $MMTCO_2e$ 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 4.6-3 2017 CLIMATE CHANGE SCOPING PLAN EMISSIONS REDUCTIONS GAP TO ACHIEVE THE 2030 GHG TARGET

Modeling Scenario	2030 GHG Emissions $MMTCO_2e$
Reference Scenario (Business-as-Usual)	389
With Known Commitments	320
2030 GHG Target	**260**
Gap to 2030 Target with Known Commitments	**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 October 28, 2022.

Table 4.6-4, *2017 Climate Change Scoping Plan Emissions by Sector to Achieve the 2030 GHG Target*, provides GHG emissions by sector, for 1990, and the range of GHG emissions for each sector estimated for 2030, and the percent change compared to 1990 levels.

TABLE 4.6-4 2017 CLIMATE CHANGE SCOPING PLAN EMISSIONS BY SECTOR TO ACHIEVE THE 2030 GHG TARGET

Scoping Plan Sector	1990 $MMTCO_2e$	2030 Proposed Plan Ranges $MMTCO_2e$	% Change from 1990
Agricultural	26	24-25	-8% to -4%
Residential and Commercial	44	38-40	-14% to -9%
Electric Power	108	30-53	-72% to -51%
High GWP	3	8-11	267% to 367%
Industrial	98	83-90	-15% to -8%
Recycling and Waste	7	8-9	14% to 29%
Transportation (including TCU)	152	103-111	-32% to -27%
Net Sink[a]	-7	TBD	TBD
Sub Total	431	294-339	-32% to -21%
Cap-and-Trade Program	NA	24-79	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: 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 October 28, 2022.

- **Executive Order B-55-18.** Executive Order 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." Executive Order 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 should be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.
- **AB 1279.** On August 31, 2022, the California Legislature passed AB 1279, which requires California to achieve net-zero GHG emissions no later than 2045 and to achieve and maintain negative GHG emissions thereafter. Additionally, AB 1279 also establishes a GHG emissions reduction goal of 85 percent below 1990 levels by 2045. CARB will be required to update the scoping plan to identify and recommend measures to achieve the net-zero and GHG emissions-reduction goals.
- 2022 Climate Change Scoping Plan Update. CARB adopted the 2022 Scoping Plan on December 15, 2022, which lays out a path to achieve carbon neutrality by 2045 or earlier and to reduce the State's anthropogenic GHG emissions.[19] The Scoping Plan was updated to address the carbon neutrality goals of EO B-55-18. Previous Scoping Plans focused on specific GHG reduction targets

[19] California Air Resources Board (CARB), 2022, 2022 Scoping Plan for Achieving Carbon Neutrality, https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf, accessed December 7, 2022.

for our industrial, energy, and transportation sectors—to meet 1990 levels by 2020, and then the more aggressive 40 percent below that for the 2030 target. This plan expands upon earlier Scoping Plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. Carbon neutrality takes it one step further by expanding actions to capture and store carbon, including through natural and working lands and mechanical technologies, while drastically reducing anthropogenic sources of carbon pollution at the same time.

CARB's 2022 Scoping Plan identifies strategies that would be most impactful at the local level for ensuring substantial process towards the State's carbon neutrality goals (see Table 4.6-5, *Priority Strategies for Local Government Climate Action Plans*).

TABLE 4.6-5 PRIORITY STRATEGIES FOR LOCAL GOVERNMENT CLIMATE ACTION PLANS

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

Source: California Air Resources Board, 2022, 2022 Scoping Plan for Achieving Carbon Neutrality, https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf, accessed July 19, 2023.

For residential and mixed-use development projects, CARB recommends this first approach to demonstrate that these land use development projects are aligned with State climate goals based

on the attributes of land use development that reduce operational GHG emissions while simultaneously advancing fair housing. Attributes that accommodate growth in a manner consistent with the GHG and equity goals of SB 32 have all the following attributes:

Transportation Electrification

- Provide EV charging infrastructure that, at a minimum, meets the most ambitious voluntary standards in the California Green Building Standards Code at the time of project approval.

VMT Reduction

- Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer).
- Does not result in the loss or conversion of the State's natural and working lands;
- Consists of transit-supportive densities (minimum of 20 residential dwelling units/acre), or is in proximity to existing transit stops (within a half mile), or satisfies more detailed and stringent criteria specified in the region's Sustainable Communities Strategy (SCS);
- Reduces parking requirements by:
  - Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or
  - Providing residential parking supply at a ratio of <1 parking space per dwelling unit; or
  - For multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.
- At least 20 percent of the units are affordable to lower-income residents;
- Result in no net loss of existing affordable units.

Building Decarbonization

- Use all electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking.

The second approach to project-level alignment with State climate goals is net-zero GHG emissions, especially for new residential projects. The third approach to demonstrating project-level alignment with State climate goals is to align with GHG thresholds of significance, which many local air quality management districts (AQMDs) and air pollution control districts (APCDs) have developed or adopted.[20]

- SB 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

[20] California Air Resources Board, 2022, 2022 Scoping Plan for Achieving Carbon Neutrality, https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf, accessed July 20, 2023.

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 (MPO). The Metropolitan Transportation Commission (MTC) is the MPO for the nine-county San Francisco Bay Area 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. CARB adopted revised SB 375 targets for the MPOs in March 2018.[21] The updated targets become effective on October 1, 2018. The targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update (for SB 32), 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 relative 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 translate into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCS to achieve the SB 375 targets. For next SCS update, CARB's updated targets for the MTC/ABAG region are a 10 percent per capita GHG reduction in 2020 from 2005 levels (compared to 7 percent under the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 15 percent). CARB foresees that the additional GHG emissions reductions in 2035 may be achieved from land use changes, transportation investment, and technology strategies.[22]

- Transportation Sector Regulations – AB 1493. California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the USEPA. In 2012, the USEPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of ZE vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025

[21] California Air Resources Board, 2018, Updated Final Staff Report: Proposed Update to the SB 375 Greenhouse Gas Emissions Reduction Targets.

[22] California Air Resources Board, 2018, Updated Final Staff Report: Proposed Update to the SB 375 Greenhouse Gas Emissions Reduction Targets.

new automobiles will emit 34 percent less GHG emissions and 75 percent less smog-forming emissions.[23]

- Transportation Sector Regulations – Executive Order S-01-07. On January 18, 2007, the state set a new LCFS for transportation fuels sold in the state. Executive Order S-01-07 sets a declining standard for GHG emissions measured in CO_2e gram per unit of fuel energy sold in California. The LCFS required a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of transportation fuels, and uses market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.
- Transportation Sector Regulations – Executive Order B-16-2012. On March 23, 2012, the state identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate ZE vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directed the number of ZE vehicles in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are ZE by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions to 80 percent below 1990 levels.
    - Transportation Sector Regulations – Executive Order N-79-20. On September 23, 2020, Governor Newsom signed Executive Order N-79-20, whose goal is that 100 percent of in-state sales of new passenger cars and trucks will be ZE by 2035. Additionally, the fleet goals for trucks are that 100 percent of drayage trucks are ZE by 2035, and 100 percent of medium- and heavy-duty vehicles in the state are ZE by 2045, where feasible. The Executive Order's goal for the State is to transition to 100 percent ZE off-road vehicles and equipment by 2035, where feasible. On August 25, 2022, CARB adopted the Advanced Clean Cars II (ACC II) regulations that codifies the EO goal of 100 percent of in-state sales of new passenger vehicles and trucks be ZE by 2035. Starting in year 2026, ACC II requires that 35 percent of new vehicles sold be ZE or plug-in hybrids.
- Renewable Portfolio/Carbon Neutrality Regulations – Senate Bills 1078, 107, and X1-2, and Executive Order S-14-08. A major component of California's Renewable Energy Program is the renewables portfolio standard established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08, signed in November 2008, expanded the State's renewable energy standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The

[23] See also the discussion on the update to the CAFE standards under Federal Laws, above. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot and 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.

increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

- Renewable Portfolio/Carbon Neutrality Regulations – Senate Bill 350. Senate Bill 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.
- Renewable Portfolio/Carbon Neutrality Regulations – Senate Bill 100. On September 10, 2018, Governor Brown signed SB 100. 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. SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill establishes an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.
- Renewable Portfolio/Carbon Neutrality Regulations – Senate Bill 1020. SB 1020 was signed into law on September 16, 2022. It requires renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent by 2040. Additionally, SB 1020 requires all state agencies to procure 100 percent of electricity from renewable energy and zero-carbon resources by 2035.
- Energy Efficiency Regulations – California Building Code: Building Energy Efficiency Standards. Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for 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; 4) and nonresidential lighting requirements.[24] 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 became effective and replaced the 2019 standards on January 1, 2023. The 2022 standards require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric

[24] California Energy Commission, 2018., News Release: Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation., https://www.energy.ca.gov/news/2018-05/energy-commission-adopts-standards-requiring-solar-systems-new-homes-first, accessed July 21, 2023.

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.[25]

- Energy Efficiency Regulations – California Building Code: CALGreen. On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.[26] The mandatory provisions of CALGreen became effective January 1, 2011. The 2019 CALGreen standards became effective January 1, 2020 while the 2022 CALGreen standards became effective on January 1, 2023.
- Energy Efficiency Regulations – 2006 Appliance Efficiency Regulations. The 2006 Appliance Efficiency Regulations (20 CCR Sections 1601 through 1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. Though these regulations are now often viewed as "business as usual," they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.
- Solid Waste Regulations – AB 939. California's Integrated Waste Management Act of 1989 (AB 939, Public Resources Code Section 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.
- Solid Waste Regulations – AB 341. AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses. Section 5.408 of CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.
- Solid Waste Regulations – AB 1327. The California Solid Waste Reuse and Recycling Access Act (AB 1327, Public Resources Code Section 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

[25] California Energy Commission, 2021, May 19. Amendments to the Building Energy Efficiency Standards (2022 Energy Code) Draft Environmental Report. CEC-400-2021-077-D.

[26] The green building standards became mandatory in the 2010 edition of the code.

- Solid Waste Regulations – AB 1826. In October of 2014, Governor Brown signed AB 1826 requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings with five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed with food waste.
- Water Efficiency Regulations – SBX7-7. The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed "SBX7-7." SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 required urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.
- Water Efficiency Regulations – AB 1881. The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or an equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.
- Short-Lived Climate Pollutants – SB 1383. On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and methane. Black carbon is the light-absorbing component of fine particulate matter produced during incomplete combustion of fuels. SB 1383 required the state board, no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also established targets for reducing organic waste in landfills. On March 14, 2017, CARB adopted the Short-Lived Climate Pollutant Reduction Strategy, which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use.[27] In-use on-road rules were expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020.

[27] California Air Resources Board, 2017, Short-Lived Climate Pollutant Reduction Strategy, https://www.arb.ca.gov/cc/shortlived/meetings/03142017/final_slcp_report.pdf, accessed July 20, 2023.

Regional Plans and Regulations

Plan Bay Area: Strategy for a Sustainable Region

MTC and ABAG adopted *Plan Bay Area 2050* on October 21, 2021.[28] *Plan Bay Area 2050* provides transportation and environmental strategies to continue to meet the regional transportation-related GHG reduction goals of SB 375. Under the *Plan Bay Area 2050* strategies, just under half of all Bay Area households would live within one half-mile of frequent transit by 2050, with this share increasing to over 70 percent for households with low incomes. Transportation and environmental strategies that support active and shared modes, combined with a transit-supportive land use pattern, are forecasted to lower the share of Bay Area residents that drive to work alone from over 50 percent in 2015 to 36 percent in 2050. GHG emissions from transportation would decrease significantly as a result of these transportation and land use changes, and the Bay Area would meet the state mandate of a 19-percent reduction in per-capita emissions by 2035 — but only if all strategies are implemented.[29]

To achieve MTC's/ABAG's sustainable vision for the Bay Area, the *Plan Bay Area* land use concept plan for the region concentrates the majority of new population and employment growth in the region in Priority Development Areas (PDAs). PDAs are transit-oriented, infill development opportunity areas within existing communities. An overarching goal of the regional plan is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle, VMT, and associated GHG emissions reductions. The proposed project is not within an identified PDA.[30]

Bay Area Clean Air Plan

The Air District adopted the 2017 *Clean Air Plan, Spare the Air, Cool the Climate* on April 19, 2017. The 2017 Clean Air Plan also lays the groundwork for reducing GHG emissions in the Bay Area to meet the State's 2030 GHG reduction target and 2050 GHG reduction goal. It also includes a vision for the Bay Area in a post-carbon year 2050 that encompasses the following:

- Construct buildings that are energy efficient and powered by renewable energy.
- Walk, bicycle, and use public transit for the majority of trips and use electric-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.

[28] Association of Bay Area Governments and the Metropolitan Transportation Commission, 2021, *Plan Bay Area 2050*, https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf, accessed on July 20, 2023.

[29] Association of Bay Area Governments and the Metropolitan Transportation Commission, 2021, *Plan Bay Area 2050*, https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf, accessed on July 20, 2023.

[30] Metropolitan Transportation Commission and Association of Bay Area Governments, 2020. Plan Bay Area 2050 Plan. Priority Development Areas (Plan Bay Area 2050) ArcGIS. https://opendata.mtc.ca.gov/datasets/priority-development-areas-plan-bay-area-2050/explore?location=37.496923%2C-122.269702%2C15.84, accessed July 20, 2023.

- Live a low-carbon lifestyle by purchasing low-carbon foods and goods in addition to recycling and putting organic waste to productive use.[31]

A comprehensive multipollutant control strategy has been developed to be implemented in the next three to five years to address public health and climate change and to set a pathway to achieve the 2050 vision. The control strategy includes 85 control measures to reduce emissions of ozone, particulate matter, toxic air contaminants, and GHG from a full range of emission sources. These control measures cover the following sectors: (1) stationary (industrial) sources; (2) transportation; (3) energy; (4) agriculture; (5) natural and working lands; (6) waste management; (7) water; and (8) super-GHG pollutants. Overall, the proposed control strategy is based on the following key priorities:

- Reduce emissions of criteria air pollutants and toxic air contaminants from all key sources.
- Reduce emissions of "super-GHGs" such as methane, black carbon, and fluorinated gases.
- Decrease demand for fossil fuels (gasoline, diesel, and natural gas).
- Increase efficiency of the energy and transportation systems.
- Reduce demand for vehicle travel, and high-carbon goods and services.
- Decarbonize the energy system.
- Make the electricity supply carbon-free.
- Electrify the transportation and building sectors.

Bay Area Commuter Benefits Program

Under Air District Regulation 14, Model Source Emissions Reduction Measures, Rule 1, Bay Area Commuter Benefits Program, employers with 50 or more full-time employees within the Air District are required to register and offer commuter benefits to employees. In partnership with the Air District and the MTC, the rule's purpose is to improve air quality, reduce GHG emissions, and decrease the Bay Area's traffic congestion by encouraging employees to use alternative commute modes, such as transit, vanpool, carpool, bicycling, and walking. The benefits program allows employees to choose from one of four commuter benefit options including a pre-tax benefit, employer-provided subsidy, employer-provided transit, and alternative commute benefit.

Local Regulations

San Carlos Climate Mitigation and Adaptation Plan

The City of San Carlos adopted its Climate Mitigation and Adaptation Plan (CMAP) on September 27, 2021, as an update to the San Carlos 2009 Climate Action Plan.[32] The CMAP sets forth 23 measures to guide the City in meeting reduction goals in energy use, transportation, off-road equipment, water, wastewater, land

[31] Bay Area Air Quality Management District, 2017, Final 2017 Clean Air Plan, Spare the Air, Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area, http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans, accessed July 20, 2023.

[32] City of San Carlos, 2021, City of San Carlos Climate Mitigation and Adaptation Plan, https://cms3.revize.com/revize/sancarlos/Document%20Center/City%20Hall/Departments%20And%20Divisions/City%20Manager/Sustainability/Climate%20Action/CMAP%20Final.pdf, accessed July 20, 2023.

use, and solid waste. In addition, the City's CMAP identifies the following GHG reduction targets for the City:

- Reduce emissions to 49 percent below 2005 levels by 2030.
- Reduce emissions by 83 percent below 2005 levels by 2050.

San Carlos Municipal Code

Building Standards Code

The City of San Carlos incorporates California Building Standards, including the Title 24, Part 11, the California Green Building Standards (CALGreen), the 2022 edition, by reference in the San Carlos Municipal Code (SCMC) Section 15.04.125, *Title 24, Part 11, California Green Building Standards Code (CALGreen)*. Additionally, the City adopted Reach Codes in 2021 to improve energy efficiency and further reduce GHGs, which went beyond the minimum California Energy and Green Building Standards. These Reach Codes included amendments to CALGreen as subsections to SCMC Section 15.04.080, *Title 24, Part 6, California Energy Code with appendices,* and Section 15.04.125.

Recycling and Diversion of Construction and Demolition Debris Ordinance

The SCMC includes construction waste diversion and recycling requirements through SCMC Chapter 8.05, *Recycling and Diversion of Construction and Demolition Debris*. SCMC Section 8.05.040, *Diversion requirements*, states the following:

- Covered projects generating waste comprised of at least 95 percent inert materials, including dirt, concrete asphalt, brick, and/or cinderblock, shall be required to divert at least 60 percent of all generated tonnage.
- Covered projects generating waste comprised of mixed debris, both structural debris (e.g., wood, metal, wallboard) and inert materials (dirt, asphalt, brick, and/or cinderblock) shall be required to divert at least 60 percent of all generated tonnage. However, at least 25 percent of diverted material shall come from generated tonnage that excludes dirt, concrete, asphalt, brick and/or cinderblock should equal at least 24 tons (25 percent) and the remainder, 35 tons (35 percent) can be obtained through diversion of inert materials such as dirt, concrete, asphalt, brick, and/or cinderblock.
- Covered projects generating waste that does not include inert materials (dirt, concrete, asphalt, brick, cinderblock) shall be required to achieve at least 60 percent diversion of total generated waste.
- A covered project under the ordinance is defined as a project where total development costs equal $50,000 or more or where 5 or more tons of construction and demolition debris will be generated.

4.6.1.3 EXISTING CONDITIONS

California's GHG Sources and Relative Contribution

In 2022, the statewide GHG emissions inventory was updated for 2000 to 2020 emissions using the GWPs in IPCC's AR4, and reported that California produced 369.2 $MMTCO_2e$ GHG emissions in 2020, which was 35.3 $MMTCO_2e$ lower than 2019 levels and 61.8 $MMTCO_2e$ below the 2020 GHG Limit of 431 $MMTCO_2e$.

The 2019 to 2020 decrease in emissions is likely due in large part to the impacts of the COVID-19 pandemic.[33] However, since the peak level in 2004, California's GHG emissions have generally followed a decreasing trend. In 2014, statewide GHG emissions dropped below the 2020 GHG Limit and have remained below the Limit since that time. Per capita GHG emissions in California have dropped from a 2001 peak of 13.8 metric tons per person to 9.3 metric tons per person in 2020, a 33-percent decrease.[34]

California's transportation sector remains the largest generator of GHG emissions, producing 37 percent of the state's total emissions in 2020. Industrial sector emissions made up 20 percent and electric power generation made up 16 percent of the state's emissions inventory. Other major sectors of GHG emissions include commercial and residential (4 percent), agriculture and forestry (8.6 percent), high-GWP gases (5.8 percent), and recycling and waste (2 percent).[35]

Transportation emissions continued to decline for the past three consecutive years with the rise of fuel efficiency for the passenger vehicle fleet and an increase in battery electric vehicles. The deployment of renewable and less carbon-intensive resources and higher energy efficiency standards have facilitated the continuing decline in fossil fuel electricity generation. The industrial sector trend has been relatively flat in recent years but saw a decrease of 7.1 $MMTCO_2e$ in 2020. Commercial and residential emissions saw a decrease of 1.7 $MMTCO_2e$. Emissions from high-GWP gases have continued to increase as they replace ozone depleting substance (ODS) that are being phased out under the 1987 Montreal Protocol. Emissions from other sectors have remained relatively constant in recent years. Overall trends in the inventory also continue to demonstrate that the carbon intensity of California's economy (i.e., the amount of carbon pollution per million dollars of gross domestic product [GDP]) is declining. From 2000 to 2020, the carbon intensity of California's economy decreased by 49 percent while the GDP increased by 56 percent.[36]

Project Site

The project site is vacant and does not include any existing uses that currently generate GHG emissions.

[33] California Air Resources Board, 2022, October 26, California Greenhouse Gas 2000-2020 Trends of Emissions and Other Indicators Report, https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf, accessed July 20, 2023.

[34] California Air Resources Board, 2022, October 26, California Greenhouse Gas 2000-2020 Trends of Emissions and Other Indicators Report, https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf, accessed July 20, 2023.

[35] California Air Resources Board, 2022, October 26, California Greenhouse Gas 2000-2020 Trends of Emissions and Other Indicators Report, https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf, accessed July 20, 2023.

[36] California Air Resources Board, 2022, October 26, California Greenhouse Gas 2000-2020 Trends of Emissions and Other Indicators Report, https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf, accessed July 20, 2023.

4.6.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed project would result in a significant GHG emissions impact 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 adopted for the purpose of reducing the emissions of GHG.

Project-related GHG emissions are not confined to a particular air basin but are dispersed worldwide. Impacts under impact discussion GHG-1 are not project-specific impacts to global warming, but are rather the proposed project's contribution to cumulative impacts. Therefore, the impact discussion below does not contain a separate standard of significance regarding cumulative impacts.

4.6.2.1 AIR DISTRICT JUSTIFICATION REPORT

The Air District adopted the Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans on April 20, 2022.[37] This report provides project-level thresholds of significance to determine whether a proposed project would have a significant cumulative impact on climate change (CEQA Guidelines Section 15064[h] and 15064.4[b]). These thresholds are incorporated into the Air District's 2022 CEQA Guidelines.[38]

Under the performance-based metrics to evaluate new land use development projects, in order to reach California's GHG emissions target under SB 32 and long-term goal of carbon neutrality by 2045:

Threshold A

- Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Or, if no local GHG reduction strategy is applicable to a proposed project, all of the following performance-based metrics apply:

Threshold B

- The project would not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).

[37] Bay Area Air Quality Management District, April 2022. *CEQA Thresholds Justification Report*, https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en, accessed October 28, 2022.

[38] Bay Area Air Quality Management District. 2023, April, 2022 California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines accessed July 17, 2023.

- The project would not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
- The project would achieve compliance with electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.
- The project would achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
  - Residential Projects: 15 percent below the existing VMT per capita
  - Office Projects: 15 percent the existing VMT per employee
  - Retail Projects: No net increase in existing VMT

Development projects must meet either Threshold A or Threshold B to be determined to result in a less than significant GHG emissions impact.

4.6.2.2 SAN CARLOS CLIMATE MITIGATION AND ADAPTATION PLAN

CEQA Guidelines Section 15183.5, *Tiering and Streamlining the Analysis of Greenhouse Gas Emissions*, allows for lead agencies to analyze and mitigate the significant effects of GHG emissions at a programmatic level. Pursuant to CEQA Guidelines Section 15183.5, later project specific environmental documents may tier from and/or incorporate by reference the GHG reduction plan so long as it includes the following plan elements:

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

The San Carlos CMAP is an update to the City's 2009 Climate Action Plan.[39] The CMAP was adopted in a public process following environmental review on September 27, 2021. The CMAP revised the existing community-wide (2005 and 2010 to 2017) GHG inventories based on the latest community protocols and GWPs. The CMAP provided emissions forecasts for 2030 and 2050 and established GHG emissions targets for years 2030 and 2050 consistent with SB 32 and Executive Order S-03-05. The CMAP identified State and local measures to reduce GHG emissions and quantified GHG reductions associated with these measures. The CMAP identified that with implementation of the GHG reduction measures, the CMAP provides a flexible path to reduce the community's GHG emissions to 107,920 $MTCO_2e$ by 2030 (49 percent below 2005 levels) and 36,060 $MTCO_2e$ by 2050 (83 percent below 2005 levels).

Consequently, the CMAP is a qualified GHG reduction plan. As described in Chapter 4.9, *Land Use and Planning*, of this Draft EIR, the proposed hotel is generally consistent with the land use and zoning requirements of the project site and, therefore, emissions associated with the project development are included in GHG forecast in the CMAP. Thus, the proposed project's GHG emissions impacts are evaluated based on consistency with the CMAP in accordance with CEQA Guidelines Section 15183.5.

4.6.3 IMPACT DISCUSSION

Methodology

This GHG emissions evaluation was prepared in accordance with the requirements of CEQA to determine if significant greenhouse gas impacts are likely to occur as a result of the proposed project. The Air District has published the CEQA Air Quality Guidelines that provides local governments with guidance for analyzing and mitigating GHG emissions impacts and was used in this analysis. The project GHG emissions forecast includes the following sectors:

- On-Road Transportation. Transportation emissions are based on the trip generation for a hotel land use provided by W-Trans (see Appendix H, *Transportation*, of this Draft EIR). The fleet mix in CalEEMod was adjusted to reflect a higher proportion of passenger vehicles based on vehicle fleet mix data provided by W-Trans for the proposed hotel project.
- Area Sources. Area sources generated from use of consumer products and cleaning supplies are based on California Emissions Estimator Model (CalEEMod), Version 2022.1.1.14 default emission rates and on the assumed building square footage.
- Energy. The CalEEMod default energy rates were utilized for the proposed project. In addition, the default carbon intensity factors for Peninsula Clean Energy (PCE) were also utilized. It is anticipated that only the restaurant within the proposed hotel would utilize natural gas while the remaining building uses (e.g., hotel rooms) would be electric. Moreover, the proposed project would include installation of a photovoltaic system that would generate on-site renewable electricity. Because the CalEEMod default energy rates do not account for the reduction in natural gas use and the inclusion of renewable energy, calculated project emissions from energy use are conservative.

[39] City of San Carlos, 2021, City of San Carlos Climate Mitigation and Adaptation Plan, https://cms3.revize.com/revize/sancarlos/Document%20Center/City%20Hall/Departments%20And%20Divisions/City%20Manager/Sustainability/Climate%20Action/CMAP%20Final.pdf, accessed July 20, 2023.

- **Solid Waste Disposal.** Indirect emissions from waste generation are based on the default CalEEMod solid waste generation rate for the hotel land use.
- **Water/Wastewater.** GHG emissions from this sector are associated with the embodied energy used to supply water, treat water, distribute water, and then treat wastewater and fugitive GHG emissions from wastewater treatment. As discussed under impact discussion UTIL-1 of Chapter 4.13, *Utilities and Service Systems*, of this Draft EIR, the indoor water usage for the proposed hotel is based on the City's Sewer Collector Master Plan wastewater generation rate of 150 gallons per day for hotels.[40] Additionally, the outdoor water demand is based on the State's Model Water Efficient Landscape Ordinance water budget worksheet for non-residential landscapes.[41]
- **Refrigerants.** Emissions generated from refrigerants associated with refrigeration and air conditioning systems are based on CalEEMod default assumptions (e.g., type of refrigerant, GWP value, quantify, etc..).
- **Construction.** The project-related construction emissions are based on information provided by the Applicant and CalEEMod defaults. Construction is modeled to occur between June 2024 to December 2025 for an approximately 18-month duration, based on information provided by the project applicant. The construction equipment mix is generally based on CalEEMod defaults.

Life-cycle emissions are not included in this analysis because not enough information is available for the proposed project. Therefore, lifecycle GHG emissions would be speculative.[42] Additionally, black carbon emissions are not included in the GHG analysis because CARB does not include this pollutant in the State's AB 32/SB 32 inventory and treats this short-lived climate pollutant separately.[43]

[40] City of San Carlos, 2013. *Sewer Collection System Master Plan*.

[41] California Department of Water Resources, 2020. Water Budget Calculators, https://data.cnra.ca.gov/dataset/water-budget-calculators, accessed on September 12, 2022.

[42] Life-cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions found that lifecycle analyses was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction phases of individual development projects is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials are also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted. (Governor's Office of Planning and Research, 2008, CEQA and Climate Change: Addressing Climate Change through CEQA Review. Technical Advisory. http://opr.ca.gov/docs/june08-ceqa.pdf, accessed July 20, 2023.)

[43] Black carbon emissions have sharply declined due to efforts to reduce on-road and off-road vehicle emissions, especially diesel particulate matter. The State's existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years. (California Air Resources Board, 2017. Final Proposed Short-Lived Climate Pollutant Reduction Strategy. https://www.arb.ca.gov/cc/shortlived/shortlived.htm, accessed July 20, 2023.)

GHG-1 The proposed project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Implementation of a development project could contribute to global climate change through direct emissions of GHGs from on-site area sources and vehicle trips generated by the project, and indirectly through off-site energy production required for on-site activities, water use, and waste disposal. Because no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, climate change impacts of a project are considered on a cumulative basis. As identified in Section 4.6.2.2, *San Carlos Climate Mitigation and Adaptation Plan*, the City of San Carlos's CMAP is a qualified GHG reduction plan. Therefore, the proposed project's GHG emissions impacts are evaluated below based on consistency with the CMAP in accordance with CEQA Guidelines Section 15183.5.

Net Increase in GHG Emissions

Implementation of the proposed project would result in the development of a hotel on the project site. Operation of the proposed project would result in water demand, wastewater and solid waste generation, area sources (e.g., consumer cleaning products), energy usage (i.e., electricity), refrigerant use, and vehicle trips. The total GHG emissions that are associated with the proposed project are shown in Table 4.6-6, *Project-Related Operational GHG Emissions*. BAAQMD does not identify thresholds of significance for construction-related GHG emissions, which are one-time, short-term emissions and therefore would not significantly contribute to the long-term cumulative GHG emissions impacts of the proposed project.[44]

TABLE 4.6-6 PROJECT-RELATED OPERATIONAL GHG EMISSIONS

	GHG Emissions	
	$MTCO_2e$ Per Year	Percent Proportion
Mobile Sources	1,028	76%
Area Sources	2	<1%
Energy Use[a]	245	18%
Water/Wastewater	17	1%
Waste Generation	22	2%
Refrigerants	33	2%
Total	**1,347**	**100%**

Notes: Totals may not equal 100 percent due to rounding.
[a] As stated, energy emissions are based on default CalEEMod energy rates and mixed-fuel assumptions and PG&E carbon intensity factors and are conservative estimates because the proposed uses would primarily be all-electric except for the hotel restaurant and a PV system would be installed.
Source: CalEEMod, Version 2022.1.1.14

[44] BAAQMD. 2022, The Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans, https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en, accessed July 20, 2023.

Consistency with the San Carlos CMAP

The San Carlos CMAP is an update to the City's 2009 Climate Action Plan and was adopted on September 27, 2021.[45] The CMAP provided emissions forecasts for 2030 and 2050, and established GHG emissions targets for years 2030 and 2050 consistent with SB 32 and Executive Order S-03-05. The CMAP identified State and local measures to reduce GHG emissions and quantified GHG reductions associated with these measures. A consistency analysis with the proposed project to the applicable policies in the CMAP is shown in Table 4.6-7, *Consistency with the City of San Carlos Mitigation and Adaptation Strategy.* As identified in the table below, the proposed project would be consistent with the strategies in the City of San Carlos CMAP. Therefore, impacts are considered *less than significant.*

TABLE 4.6-7 CONSISTENCY WITH THE CITY OF SAN CARLOS CLIMATE MITIGATION AND ADAPTATION STRATEGY

Applicable Strategies	Consistency with Applicable Strategies
Energy Use	
5. Advance electrification through local amendments to the California Building Code.	**Consistent:** The proposed project would be built to meet the latest Building Energy Efficiency Standards and CALGreen. The current CALGreen is included by reference in SCMC Section 15.04.125.
6. Continue to support and increase participation in rooftop and on-site solar energy systems in the community and at City facilities.	**Consistent:** The proposed project would include installation of a rooftop PV system that would generate on-site renewable electricity.
7. Continue to support and promote PCE as the community's official electricity provider with a goal to provide 100 percent carbon-free, renewable energy by 2025.	**Consistent:** The proposed project would utilize PCE CCA for all electrical needs and would also install a rooftop PV system.
Transportation and Land Use	
11. Transit-Oriented Development. Encourage development of mixed-use projects, higher-density housing, and job growth within the General Plan's recognized Transit-Oriented Development (TOD) corridor (Planning Areas 1, 2, and 3) while being mindful of surrounding uses.	**Not Applicable:** The project site is not located in a TOD corridor. However, the proposed project would include features to support the use of transit. The proposed project would include new sidewalks landscaped with street trees along the project's frontage on Industrial Road, including an enlarged sidewalk and landscaped area at the corner of Industrial Road and Holly Street. In addition, the proposed project site is approximately 0.5 mile northeast of the San Carlos Caltrain Station. There are also bus stops for four San Mateo County Transit District (SamTrans) fixed bus routes within 0.5 mile of the project site. Furthermore, the project Transportation Demand Management (TDM) Plan would include alternative commute subsidies for hotel employees to incentivize and encourage public transit use.
12. Prioritize bicycling and walking as safe, practical, and attractive travel options citywide, as directed by the Bicycle and Pedestrian Master Plan.	**Consistent:** The proposed project would provide 20 short-term bicycle parking located near the building entrance, project driveway, and courtyard; 10 long-term bicycle parking located in a secure bicycle storage room; and employee showers, changing rooms, and lockers. It would also provide new sidewalks landscaped with street trees along the project's frontage on Industrial Road, and site circulation designed to provide safe pedestrian connections to and around the project site, including a textured drive aisle in front of the building entrance to reduce vehicle speed, and walkways between the building and sidewalk along Industrial Road.

[45] City of San Carlos, 2021, *City of San Carlos Climate Mitigation and Adaptation Plan*, https://www.cityofsancarlos.org/home/showdocument?id=6727&t=637600587418444510, accessed October 28, 2022.

TABLE 4.6-7 CONSISTENCY WITH THE CITY OF SAN CARLOS CLIMATE MITIGATION AND ADAPTATION STRATEGY

Applicable Strategies	Consistency with Applicable Strategies
15. Support improvements to public transit routes, services, and facilities to facilitate longer distance travel.	**Not Applicable:** Overall, it is not anticipated that transit ridership generated by the proposed project would be substantial enough to warrant expanded transit services. While the proposed project would not include installation of additional public transit facilities (e.g., bus stops), its Transportation Demand Management (TDM) Plan would include alternative commute subsidies for hotel employees to incentivize and encourage public transit use. The proposed project site is approximately 0.5 mile northeast of the San Carlos Caltrain Station. Additionally, there are bus stops for four San Mateo County Transit District (SamTrans) fixed bus routes within 0.5 mile of the project site.
17. Reduce community-wide transportation-related emissions per resident and employee, with an emphasis on reductions from existing and new development in the city's core commercial, office, and industrial areas, including development on the east side.	**Consistent:** The proposed project would implement a TDM Plan, which would contribute to reducing project-related vehicle trips by 32 percent. The City of San Carlos requires development projects to implement a Transportation Demand Management (TDM) Plan to reduce project trip generation. Furthermore, as discussed under Impact TRAN-2 of Chapter 4.11, *Transportation*, of this Draft EIR, the proposed project's VMT would be below the City of San Carlos SB 743 VMT threshold.
Solid Waste	
27. Increase the amount of waste recycled during construction and demolition of buildings.	**Consistent:** The proposed project would be required to provide recycling under the Construction & Demolition Waste Management Plan Agreement that is required by SCMC Chapter 8.05.
28. Partner with RethinkWaste to expand commercial and multi-family residential recycling and composting programs.	**Consistent:** The proposed project would include areas for storage of solid waste, recyclable materials, and organic waste, which would be collected by Recology, a waste hauler contracted through RethinkWaste.
Water and Wastewater	
32. Promote drought-tolerant and firewise landscaping.	**Consistent:** The proposed project would result in 11,427 square feet of landscaped area, approximately 13 percent of the project site, including biofiltration planters, shrubs and groundcover, and non-irrigated landscaping. Landscaping would use a fully automatic irrigation system designed to meet the City's Water Efficient Landscape Ordinance, including requirements for a "smart" controller with an on-site weather sensor to adjust run times to respond to real-time weather conditions. The proposed project would not include an irrigated lawn, but would include a synthetic lawn for the courtyard. Shrubs and groundcovers would be grouped according to appropriate hydrozones and would be low- or medium-water use in nature.
33. Promote gray water and recycled water systems.	**Not Applicable:** The Mid-Peninsula District does not currently use recycled water due to low potential irrigation demand and high cost and it is not anticipated to be available for future use through 2045.

Source: City of San Carlos Climate Mitigation and Adaptation Plan, 2021.

Significance without Mitigation: Less than significant.

GHG-2 The proposed project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions.

This impact discussion evaluates the proposed project's consistency with applicable plans adopted for the purpose of reducing GHG emissions, which include CARB's Scoping Plan and MTC/ABAG's *Plan Bay Area 2050*. The consistency review with the City of San Carlos CMAP is addressed in impact discussion GHG-1 above and concluded that the proposed project would be consistent with the City's CMAP.

CARB's Scoping Plan

CARB's Climate Change Scoping Plan outlines the State's strategies to reduce GHG emissions in accordance with the targets established under AB 32 and SB 32. The Scoping Plan is applicable to State agencies and is not directly applicable to cities/counties and individual projects. However, new regulations adopted by the State agencies outlined in the Scoping Plan result in GHG emissions reductions at the local level. As a result, 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.

The proposed project would 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. For example, the proposed project would meet the applicable CALGreen and Building Energy Efficiency standards. Project GHG emissions shown in Table 4.6-6 include reductions associated with statewide strategies that have been adopted since AB 32 and SB. Therefore, the proposed project would generate GHG emissions consistent with the reduction goals of AB 32 and SB 32, and impacts are considered *less than significant*.

Plan Bay Area

As part of the implementing framework for *Plan Bay Area 2050*, local governments have identified PDAs to focus growth. The proposed project is not within a PDA; however, it is an infill development project within the City and is therefore consistent with the overall goals of *Plan Bay Area 2050* in concentrating new development in locations where there is existing infrastructure.[46] In addition, as described in Section XIV*, Population and Housing*, of the Initial Study (see *Appendix A, Notice of Preparation, Initial Study, and Scoping Comments*, of this Draft EIR), the proposed project would be consistent with the land use designation of the project site and would not result in exceeding the buildout projections. Therefore, the proposed project would not conflict with the land use concept plan in *Plan Bay Area 2050* and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

[46] Metropolitan Transportation Commission and Association of Bay Area Governments, 2020. Plan Bay Area 2050 Plan. Priority Development Areas (Plan Bay Area 2050) ArcGIS. https://opendata.mtc.ca.gov/datasets/priority-development-areas-plan-bay-area-2050/explore?location=37.496923%2C-122.269702%2C15.84, accessed July 20, 2023.

4.7 HAZARDS AND HAZARDOUS MATERIALS

This chapter describes the potential impacts associated with the development of the proposed project that are related to hazardous materials, airport hazards, and emergency response and evacuation plans. A summary of the relevant regulatory setting and existing conditions is followed by a discussion of the proposed project impacts and cumulative impacts. Additionally, this chapter describes the environmental setting, including regulatory framework and existing conditions, and identifies mitigation measures that would avoid or reduce significant impacts.

As discussed in the Notice of Preparation (see Appendix A, *Notice of Preparation, Initial Study, and Scoping Comments*, of this Draft Environmental Impact Report [EIR]), the proposed project would not result in significant environmental impacts related to emitting hazardous waste near schools or exposing people or structures to wildland fires. Therefore, this chapter's environmental setting and impact discussion do not focus on these topics.

The analysis in this section is based, in part, upon the following documents:

- *Phase I Environmental Site Assessment, 501 Industrial Road,* prepared by Professional Service Industries, dated September 10, 2019.
- *Soil-Vapor Sampling and Analyses Report, Proposed Hotel*, prepared by Professional Service Industries, dated February 23, 2021.
- *Soil and Groundwater Management Plan, Proposed Hotel*, prepared by Professional Service Industries, dated March 16, 2021.
- *Soil Vapor Mitigation System, Proposed Hotel Indigo,* prepared for by Professional Service Industries, dated April 22, 2022.

Complete copies of these documents are included in Appendix E, *Hazardous Materials*, of this Draft EIR.

4.7.1 ENVIRONMENTAL SETTING

4.7.1.1 REGULATORY FRAMEWORK

There are many federal, State, and local programs that regulate the use, storage, and transportation of hazardous materials and hazardous waste, and they are constantly changing. Federal and State statutes, as well as local ordinances and plans, regulate hazardous waste management. These regulations can reduce the danger hazardous substances may pose to people and businesses under normal daily circumstances and as a result of emergencies and disasters.

Responsible agencies that regulate hazardous materials and waste include:

- 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 and delegates to states and tribes the responsibility for issuing permits and

for monitoring and enforcing compliance. USEPA programs promote handling hazardous wastes safely, cleaning up contaminated land, and reducing trash. Under the authority of the Resource Conservation and Recovery Act (RCRA) and in cooperation with State and tribal partners, the EPA's Waste Management Division manages a hazardous waste program, an underground storage tank program, and a solid waste program that includes development of waste reduction strategies such as recycling.

- California Environmental Protection Agency: California Environmental Protection Agency (Cal EPA) was created in 1991 by Governor's Executive Order. The six boards, departments, and office were placed under the Cal EPA umbrella to create a cabinet-level voice for the protection of human health and the environment and to assure the coordinated deployment of State resources. Cal EPA oversees the unified hazardous waste and hazardous materials management regulatory program.
- California Department of Toxic Substances Control: The California Department of Toxic Substance Control (DTSC) is a department of Cal EPA, which authorizes DTSC to carry out the RCRA program in California to protect people from exposure to hazardous wastes. The department regulates hazardous waste, cleans up existing contamination, and looks for ways to control and reduce the hazardous waste produced in California primarily under the authority of RCRA and in accordance with the California Hazardous Waste Control Law (California Health and Safety Code Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (Title 22, California Code of Regulations [CCR], Divisions 4 and 4.5). Permitting, inspection, compliance, and corrective action programs ensure that people who manage hazardous waste follow State and federal requirements and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Federal Regulations

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) of 1976 is the principal federal law that regulates the generation, management, and transportation of waste. Hazardous waste management includes the treatment, storage, or disposal of hazardous waste. Treatment is any process that changes the physical, chemical, or biological character of the waste to reduce its potential as an environmental threat. Treatment can include neutralizing the waste; recovering energy or material resources from the waste; rendering the waste less hazardous; or making the waste safer to transport, dispose of, or store.

The RCRA gave the USEPA the authority to control hazardous waste from "cradle to grave," that is, from generation to transportation, treatment, storage, and disposal. The RCRA also set forth a framework for the management of nonhazardous wastes. The 1986 amendments to RCRA enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. It should be noted that RCRA focuses only on active and future facilities and does not address abandoned or historical sites. The federal Hazardous and Solid Waste Amendments are the 1984 amendments to RCRA that required phasing out land disposal of hazardous waste. Some of the other mandates of this strict law include increased enforcement authority for the USEPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, commonly known as the Superfund, was enacted to protect the water, air, and land resources from the risks created by past chemical disposal practices such as abandoned and historical hazardous waste sites. Through the act, the USEPA was given power to seek out the parties responsible for any release and assure their cooperation in the cleanup. This federal law created a tax on the chemical and petroleum industries that went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA also enabled the revision of the National Contingency Plan, which provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The National Contingency Plan also established the National Priority List (NPL) of sites, which are known as Superfund sites. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

Superfund Amendments and Reauthorization Act

Superfund Amendments and Reauthorization Act reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. Title III of the Act also authorized the Emergency Planning and Community Right-to-Know Act.

Emergency Planning & Community Right to Know Act

Emergency Planning & Community Right to Know Act (EPCRA) was enacted by Congress as the national legislation on community safety. This law was designated to help local communities protect public health, safety, and the environment from chemical hazards. The primary purpose of EPCRA is to inform communities and citizens of chemical hazards in their areas by requiring businesses to report the locations and quantities of chemicals stored on-site to state and local agencies. These reports help communities prepare to respond to chemical spills and similar emergencies. Section 3131 of EPCRA requires manufacturers to report releases to the environment (air, soil, and water) of more than 600 designated toxic chemicals, report off-site transfers of waste for treatment or disposal at separate facilities, pollution prevention measures and activities, and participate in chemical recycling. These annual reports are submitted to the USEPA and State agencies. The USEPA maintains and publishes a database that contains information on toxic chemical releases and other waste management activities by certain industry groups and federal facilities. This online, publicly available, national digital database is called the Toxics Release Inventory and was expanded by the Pollution Prevention Act of 1990.

To implement EPCRA, Congress required each state to appoint a State Emergency Response Commission (SERC) to coordinate planning and implementation activities associated with hazardous materials. The SERCs were required to divide their states into Emergency Planning Districts and to name a Local Emergency Planning Committee (LEPC) for each district. The federal EPCRA program is implemented and administered in California by the California Emergency Management Agency (Cal EMA), a SERC, six LEPCs, and 83 Certified Unified Program Agencies (CUPAs). Cal EMA provides staff support to the SERC and the LEPCs. The Governor's Office of Emergency Services (OES) coordinates and provides staff support for the SERC and LEPCs. Broad representation by firefighters, health officials, government and media

representatives, community groups, industrial facilities, and emergency managers ensures that all necessary elements of the planning process are represented.

Toxic Substances Control Act

The Toxic Substances Control Act of 1976 was enacted by Congress to give the USEPA the ability to track the 75,000 industrial chemicals currently produced or imported into the United States. The USEPA repeatedly screens these chemicals and can require reporting or testing of any that may pose an environmental or human health hazard. It can ban the manufacture and import of those chemicals that pose an unreasonable risk. Also, the USEPA has mechanisms in place to track the thousands of new chemicals that industry develops each year with either unknown or dangerous characteristics. It then can control these chemicals as necessary to protect human health and the environment. The act supplements other federal statutes, including the Clean Air Act and the Toxics Release Inventory under EPCRA.

Federal Aviation Regulation Part 77

The Federal Aviation Administration (FAA) issued a final rule on July 21, 2010, effective January 18, 2011, to 14 CFR Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*. Federal Aviation Regulation (FAR) Part 77 establishes standards and notification requirements for objects affecting navigable airspace. The notification requirement serves as the basis for evaluating the effect of construction or alteration on operating procedures, determining the potential hazardous effect of proposed construction on air navigation, identifying mitigating measures to enhance safe air navigation, and charting of new objects. FAR Part 77 notification allows the FAA to identify potential aeronautical hazards in advance to prevent or minimize the adverse impacts to the safe and efficient use of navigable airspace. Any developer who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA:

- Any construction or alteration exceeding 200 feet above ground level.
- Any construction or alteration:
  - within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 feet.
  - within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet.
  - within 5,000 feet of a public use heliport which exceeds a 25:1 surface,
- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed the standards noted above.
- When requested by the FAA.
- Any construction or alteration located on a public use airport or heliport regardless of height or location.

State Regulations

Business Plan Act

In recognition of the dangers associated with keeping hazardous substances, the State legislature has enacted several laws regulating the use and transport of identified hazardous materials. California's

Hazardous Materials Release Response Plans and Inventory Law, sometimes called the "Business Plan Act," aims to minimize the potential for accidents involving hazardous materials and to facilitate an appropriate response to possible hazardous materials emergencies. The law requires businesses that use hazardous materials to provide inventories of those materials to designated emergency response agencies, to illustrate on a diagram where the materials are stored on-site, to prepare an emergency response plan, and to train employees to use the materials safely.

Chapter 6.95 of the California Health and Safety Code and Title 19 of the California Code of Regulations (CCR) describe the requirements for chemical disclosure, business emergency plans, and community right-to-know programs. In particular, Chapter 6.95 requires all businesses using hazardous materials to inform local government agencies of the types and quantities of materials stored on-site. This disclosure enables emergency response agencies to respond quickly and appropriately to accidents involving dangerous substances.

The State requires the owner or operator of any business that handles hazardous materials in quantities equal to or greater than 55 gallons, 500 pounds, or 200 cubic feet of gas at standard temperature and pressure, to develop and submit a business plan. The California OES, acting pursuant to Health and Safety Code Section 25503.3, has developed a single comprehensive hazardous materials inventory form for businesses to use to submit their individual hazardous materials inventories. This form contains all State and federally required inventory information. Use of this form is mandatory.

Hazardous Materials Transportation

Section 31303 of the California Vehicle Code and US Department of Transportation regulations require hazardous materials being directly transported from one location to another ("through-transport") to use routes with the least overall travel time (e.g., major roadways/highways instead of local streets). However, local roadways can be used for deliveries and pickups of hazardous materials and wastes to or from a specific location. The California Highway Patrol (CHP) and California Department of Transportation (Caltrans) are the enforcement agencies for hazardous materials transportation regulations in the project area. Transporters of hazardous materials and waste are responsible for complying with all applicable packaging, labeling, and shipping regulations. The California OES also provides emergency response services involving hazardous materials incidents. Federal regulations governing the safe and secure transport of hazardous materials are set forth in Code of Federal Regulations (CFR) Title 49 Parts 100-185.

Hazardous Materials in Structures

Asbestos is regulated as a hazardous air pollutant under the Clean Air Act and is also regulated as a potential worker safety hazard under the authority of the California Division of Occupational Safety and Health (Cal/OSHA). Cal/OSHA considers asbestos-containing building material a hazardous substance when a bulk sample contains more than 0.1 percent asbestos by weight. Cal/OSHA requires that a qualified contractor licensed to handle asbestos materials handle any material containing more than 0.1 percent asbestos by weight. Any activity that involves cutting, grinding, or drilling during building renovation or demolition, or relocation of underground utilities, could release friable asbestos fibers unless proper precautions are taken.

Several regulations and guidelines pertain to abatement of and protection from exposure to asbestos-containing materials (ACM) and lead-based paint (LBP). These include Construction Safety Orders 1529 (pertaining to ACM) and 1532.1 (pertaining to LBP) from Title 8 of the CCR, and Part 61, Subpart M, of the CFR (pertaining to ACM). These rules and regulations prohibit emissions of asbestos from asbestos-related demolition or construction activities, require medical examinations and monitoring of employees engaged in activities that could disturb asbestos, specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers, and require notice to federal and local government agencies prior to beginning renovation or demolition that could disturb asbestos. In California, ACM and LBP abatement must be performed and monitored by contractors with appropriate certification from the California Department of Health Services.

California Building Code

The State of California provides a minimum standard for building design through the California Building Code (CBC) (California Code of Regulations, Title 24, Part 2). The CBC is based on the 2018 International Building Code, but has been modified for California conditions. The CBC is updated on a three-year cycle; the current 2022 CBC took effect in January 2023. Building projects are plan-checked by local building officials for compliance with the typical fire safety requirements of the CBC, including fire and smoke protection features.

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 (California Code of Regulations, Title 24, Part 9). The CFC is revised and published approximately every three years by the California Building Standards Commission. The CFC is updated on a three-year cycle; the current 2022 CFC took effect in January 2023.

Regional Regulations

Airport Land Use Compatibility Plan

The Airport Land Use Compatibility Plan (ALUCP) covering all three public airports in San Mateo County was approved by the City/County Association of Governments of San Mateo County (C/CAG) in December 1996. The C/CAG is the Airport Land Use Commission (ALUC) responsible for promoting land use compatibility around the County's airports in order to minimize public exposure to excessive noise and safety hazards. The C/CAG has since adopted updated ALUCPs for San Francisco International Airport (November 2012), Half Moon Bay Airport (September 2014), and San Carlos Airport (October 2015).

The updated ALUCP for San Carlos Airport describes a series of land use safety and compatibility zones and associated guidelines for development around the San Carlos Airport that are intended to prevent development that is incompatible with airport operations. These regulations include height restrictions based on proximity to the airport and flight patterns. The ALCUP for the San Carlos Airport delineates two Airport Influence Areas (AIA), Area A and Area B, within proximity to the airport. As a requirement for development located in Area A, the presence of existing airports within two miles of the property must be

disclosed in the notice of intention to offer the property for sale. For development located within Area B of the AIA, the C/CAG Board shall exercise its statutory duty to review proposed land development proposals, among other plans, ordinances, amendments, and actions. The project site is in Area B of the AIA and will need to conform to the review process of the C/CAG Board.[1]

San Francisco Bay Regional Water Quality Control Board

The Porter-Cologne Water Quality Act[2] established the State Water Resources Control Board and divided the state into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board (RWQCB). The San Francisco Bay Region (Region 2) RWQCB regulates water quality in the project area. The RWQCB is a department of CalEPA that oversees investigation and cleanup of sites, including USTs, where wastes have been discharged in order to protect the water quality of the state. The RWQCB regulates wastewater discharges to surface waters and to groundwater. The San Francisco Bay 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. It also regulates stormwater discharges from construction, industrial, and municipal activities.

San Francisco Bay RWQCB Order No. R2-2017-0048 (NPDES Permit No. CAG912002) establishes general waste discharge requirements for discharge or reclamation of extracted and treated groundwater resulting from the cleanup of groundwater polluted by volatile organic compounds, fuel leaks, fuel additives, and other related wastes. In order to obtain coverage under this general permit, prospective dischargers must submit a Notice of Intent (NOI) and a filing fee. Once the Executive Officer reviews and approves the NOI, an Authorization to Discharge is issued.

San Francisco Bay RWQCB Order No. R2-2018-0050 is an amendment of Order R2-2017-0048 which rescinded sulfate and manganese water quality-based effluent limits, reduced selenium monitoring and related requirements, provided for revised and alternate analytical test methods, and rescinded reporting requirements for the mass removal of pollutants.

County Regulations

A CUPA is an agency of a county or city that administers several State programs regulating hazardous materials and hazardous wastes. San Mateo County Environmental Health Division is the CUPA for the City of San Carlos. SMCEH administers the programs described below.

Hazardous Materials Business Plan Program

The Business Plan must include a summary of business activities; owner/operator information including emergency contacts; the type and quantity of reportable hazardous materials; a site map; emergency response procedures; and an employee training program.

[1] Airport Land Use Compatibility Plan for the Environs of San Carlos Airport, 2015, Airport Influence Area Compatibility Criteria and Policies for San Carlos Airport, https://ccag.ca.gov/wp-content/uploads/2015/11/SQL_FinalALUCP_Oct15_read.pdf, accessed on August 24, 2022.

[2] California Water Code Sections 13000 *et seq*.

In general, Business Plans are required for businesses handling and/or storing a hazardous material in quantities at or above the following thresholds: 55 gallons for liquids, 500 pounds for solids and 200 cubic feet (at standard temperature and pressure) for compressed gases.[3]

The California Accidental Release Prevention Program

The California Accidental Release Prevention Program (CalARP) protects people from the release of "regulated substances" into the environment. Regulated substances are chemicals that pose a major threat to public health and safety or the environment because they are highly toxic, flammable or explosive; such substances include ammonia, chlorine gas, hydrogen, nitric acid, and propane.

Businesses subject to CalARP must develop a Risk Management Plan (RMP) for handling an accidental release; the RMP ensures that businesses have the proper information to give emergency response teams if an accidental release occurs. RMPs describe impacts to public health and the environment if a regulated substance is released near schools, residential areas, hospitals, and childcare facilities. RMPs must include procedures for: keeping employees and customers safe; handling regulated substances; training staff; maintaining equipment; safe storage of substances; and responding to an accidental release.[4]

Underground Storage Tank Program

The CUPA staff review plans for new underground storage tanks (USTs); inspect UST sites during several construction phases to ensure installation standards are met; and conduct annual inspections to verify that operating requirements are met. All tank owners must possess a valid operating permit; conduct routine testing; maintain equipment; prepare an approved leak-response plan; and upgrade tank systems, as required.[5]

San Mateo County Multijurisdictional Local Hazard Mitigation Plan

San Mateo County Multijurisdictional Local Hazard Mitigation Plan includes policies, programs, and projects to alleviate hazards and disasters within San Mateo County. As part of the MLHMP, a hazard risk assessment was conducted for the region, including human-caused hazards. Hazard mitigation principles, goals, and objectives were developed as well as a mitigation action plan designed to reduce or eliminate losses resulting from natural and human-caused disasters. The federal Disaster Management Act requires a local hazard mitigation plan to be updated every five years. The current MLHMP was adopted in 2021.

San Mateo County Department of Emergency Services

The San Mateo County Sheriff's Department Office of Emergency Services (OES) is responsible for coordinating emergency services in the county. OES operates under a Joint Powers Agreement with the 20

[3] San Mateo County Health, 2022, Hazardous Material Business Plan Program, https://www.smchealth.org/hmbp, accessed February 10, 2022.

[4] San Mateo County Health, 2022, The California Accidental Release Prevention Program (CalARP), https://www.smchealth.org/cupa/calarp, accessed February 10, 2022.

[5] San Mateo County Health, 2022, Underground Storage Tank Program, https://www.smchealth.org/cupa/ust, accessed February 10, 2022.F

incorporated cities in the county. The San Mateo County Emergency Operations Plan was approved by the County Board of Supervisors in May 2015. San Mateo County will provide mutual aid, as needed, to the City of San Carlos.[6] The County of San Mateo Hazard Vulnerability Assessment, issued by OES in 2015, is an appendix to the Emergency Operations Plan.

Local Regulations

San Carlos General Plan

The City of San Carlos 2030 General Plan, adopted in October 2009, includes goals, policies and implementing actions designed to protect the community and its property from natural and man-made hazards in Chapter 8, *Community Safety and Services Element*. The San Carlos 2030 General Plan policies relevant to hazardous materials are listed below in Table 4.7-1, *City of San Carlos 2030 General Plan Policies Relevant to Hazardous Materials*.

TABLE 4.7-1 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO HAZARDOUS MATERIALS

Policy Number	Policy Text
Chapter 8, Community Safety and Services (CSS) Element	
Policy CSS-4.3	Mitigate hazard exposure to and from new development projects through the environmental review process, design criteria and standards enforcement.
Policy CSS-4.4	Mitigate indoor air intrusion potential in areas of new development or redevelopment where the property is located above known volatile compound plumes.
Policy CSS-4.5	Where deemed necessary, based on the history of land use, require site assessment for hazardous and toxic soil contamination prior to approving development project applications.
Policy CSS-4.6	Prohibit land uses and development which emit odors, particulates, light glare, or other environmentally- sensitive contaminants from being located within proximity of schools, community centers, senior homes and other sensitive receptors. Sensitive receptors shall be prohibited from locating in the proximity of environmentally sensitive contaminants.
Policy CSS-4.8	Actively promote public education, research and information dissemination on hazards materials.
Policy CSS-4.9	Encourage the use of green building practices to reduce potentially-hazardous materials in construction materials.

Source: City of San Carlos, 2009, *2030 General Plan*.

Emergency Operations Plan

Adopted in 2014, the *Emergency Operations Plan* establishes the structure for emergency management, identifies emergency polices, provides the operational framework for the Incident Command System (ICS) and the San Carlos Emergency Operations Center (EOC), and identifies the procedures for a disaster recovery process.[7] While there are no exact evacuation routes identified, the *Emergency Operations Plan* outlines which agencies are responsible for creating evacuation routes when an emergency is identified.

[6] City of San Carlos, 2009, *San Carlos 2030 General Plan*, *Community Safety and Service Element*, page 209.
[7] Emergency Operations Plan, 2014, Introduction, page 13.

4.7.1.2 EXISTING CONDITIONS

Past Uses of the Project Site

In 1950, the project site had a small building listed as used plumbing storage. By 1956, there was a building on the southern portion of the project site that was used as a commercial building. Lumber was also stored on the project site. From at least 1968 through 1982, there was a gas station on the northwest corner of the project site. In 1984, the project site was identified as a leaking underground storage (LUST) site and the underground storage tanks were removed.[8] The case was closed in 1992 and pursuant to Government Code Section 65962.5(c) this site is now listed on the State Water Resources Control Board Geo Tracker Website with a status of completed – case closed.[9] Contaminated media from the presence of the gas station and LUST site included soil and groundwater.[10] From 1992 through 2022, the project site included commercial buildings. In 2022, the commercial buildings were demolished, and the project site is now vacant.

Active Hazardous Materials Sites

Table 4.7-2, *Active Hazardous Materials Sites*, lists active hazardous materials sites within the vicinity of the project site. None of the off-site hazardous materials sites listed are considered an environmental concern for the proposed project due to factors including:

- The nature of the listing.
- The use of the site.
- When the site was listed and its current listed status.
- The developmental density of the setting.
- The distance between the listed and subject sites as related to the distance that releases are likely to migrate based on local surface and subsurface drainage conditions.
- The presence of intervening drainage divides.
- Contaminants of concern.
- The inferred groundwater movement.

[8] Professional Service Industries, 2019, *Phase I Environmental Site Assessment, Vacant Building, 501 Industrial Road, San Carlos, California 94070*.

[9] State Water Resources Control Board Geo Tracker Website, https://geotracker.waterboards.ca.gov/search?CMD=search&case_number=&business_name=&main_street_name=&city=&zip=&county=&SITE_TYPE=LUFT&oilfield=&STATUS=&BRANCH=&MASTER_BASE=&Search=Search, accessed on August 25, 2022.

[10] Professional Service Industries, 2019, *Phase I Environmental Site Assessment, Vacant Building, 501 Industrial Road, San Carlos, California 94070*.

TABLE 4.7-2 ACTIVE HAZARDOUS MATERIALS SITES

Site Name and Address	Distance from Project Site	Regulatory Status	Database
On-Site			
Not Applicable [a]	Not Applicable	Not Applicable	Not Applicable
Off-Site			
941 Bransten Road	2,245 feet southeast	Active – voluntary cleanup	EnviroStor
AT&T California – P3057 537 Laurel Street	2,230 feet southwest	Open double wall diesel underground storage tank (UST)	UST Finder
B&H Technical Ceramics 390 Industrial Road	1,130 feet southeast	Cleanup Program Site, Open-Site Assessment	GeoTracker
		LUST Cleanup Site, Open – site assessment (petroleum case)	
Brittan Ave Shell #171 1098 El Camino Real	4,245 feet south	Open double wall regular unleaded UST	UST Finder
		Open double wall premium unleaded UST	
		Open double wall diesel UST	
California Oil Recyclers 977A Bransten Road	2,300 feet southeast	Active – corrective action	EnviroStor
Delta Star 270 Industrial Road	2,370 feet northwest	Cleanup Program Site, Open – remediation	GeoTracker
Double AA Corporation (Belmont) 701 Harbor Boulevard	4,625 feet northwest	Open double wall diesel UST	UST Finder
		Open double wall regular unleaded UST	
		Open double wall premium unleaded UST	
Estate of Robert E. Frank 1007 Bransten Road	2,400 feet south	Cleanup Program Site, Open – site assessment Open double wall premium unleaded UST	GeoTracker
Flyers #489 602 Harbor Boulevard	4,720 feet northwest	Open double wall midgrade unleaded UST	UST Finder
		Open double wall regular unleaded UST	
		Open double wall diesel UST	
Former Pyromet Inc. 595 Industrial Road	325 feet southeast	Cleanup Program Site, Open – long term management	GeoTracker
Former Sterling Screw 925 Tanklage Road	1,825 feet southeast	Cleanup Program Site, Open – site assessment	GeoTracker
G-C Lubricants Co 977 Bransten Road	2,295 feet southeast	Active – corrective action	EnviroStor
Holly 76 906 Holly Street	525 feet west	Open double wall regular unleaded UST	UST Finder
		Open double wall premium unleaded UST	
		Open double wall diesel UST	
Holly Petroleum, Inc. 907 Holly Street	360 feet west	Open double wall regular unleaded UST	UST Finder
		Open double wall premium unleaded UST	
		Open double wall diesel UST	
		Open double wall regular unleaded UST	
Justins Chevron 90 El Camino Real	2,895 feet west	Open double wall regular unleaded UST	UST Finder
		Open double wall premium unleaded UST	
Nielsen Automotive 888 El Camino Real	3,170 feet south	Open single wall regular unleaded UST	UST Finder
		Open single wall premium unleaded UST	

TABLE 4.7-2 ACTIVE HAZARDOUS MATERIALS SITES

Site Name and Address	Distance from Project Site	Regulatory Status	Database
		Open single wall diesel UST	
Peninsula Laboratories 601 Taylor Way	2,170 feet west	Cleanup Program Site Open - remediation	GeoTracker
PG&E: San Carlos Service Center 275 Industrial Road	2,465 feet northwest	Open double wall diesel UST	UST Finder
Praxiar Distribution 767 Industrial Road	1,735 feet southeast	Cleanup Program Site, Open – long term management	GeoTracker
Recology San Mateo County 225 Shoreway Road	2,375 feet north	Open single wall diesel UST	UST Finder
San Carlos Corporation Yard 1000 Bransten Road	1,955 feet south	Open single wall diesel UST	UST Finder
San Carlos Transit Village 281-633 El Camino Real	2,235 feet east	Cleanup Program Site, Open – Assessment & Interim Remedial Action	GeoTracker
SDT Holly Shell 500 El Camino Real	2,120 feet southwest	Open double wall regular unleaded UST	UST Finder
		Open double wall regular unleaded UST	
		Open double wall premium unleaded UST	

Notes:
LUST: Leaking Underground Storage Tanks
UST: Underground Storage Tanks
a. The project site is listed as a LUST cleanup with status completed – case closed.
Sources: State Water Resources Control Board, 2022, GeoTracker database; Department of Toxic Substance Control, 2022, EnviroStor database; Environmental Protection Agency, 2022, UST Finder database.

Other Potential Hazardous Materials On-site

Soil Contamination

Due to the presence of a gas station on the project site for a number of years, there was a concern the soil would have residual vapor concentrations that would be hazardous during and after construction of the proposed project. To determine this, soil vapor sampling and analysis was conducted. Soil samples were tested for a variety of volatile organic compounds (VOCs) and it was found that benzene and vinyl chloride were over the San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels for commercial land use (ESL-C).[11] The San Francisco Bay Regional Water Quality Control Board reviewed the data from the soil vapor investigation and concluded that there is a negligible threat for the proposed commercial use of the site.[12]

[11] Professional Service Industries, February 23, 2021, *Soil-Vapor Sampling and Analyses Report, Proposed Hotel, 501 Industrial Road, San Carlos, California 94070.*

[12] San Francisco Bay Regional Water Quality Control Board, 2022, RE: Request for Agency Oversight, 501 Industrial Road, San Carlos, San Mateo County, dated October 13, 2022.

Airport-Related Hazards

San Carlos Airport, located approximately 0.25 miles to the northeast of the project site, is a general-aviation airport. The San Carlos Airport is home to approximately 500 aircraft and over 25 aviation-related businesses.[13] Figure 4.7-1, *Height Limitation Area for San Carlos Airport*, shows the project site in the area where heights of structures are limited under FAA Part 77 Regulations to avoid hazards to air navigation. Because of the proximity to the San Carlos Airport and a building height greater than 30 feet in height, the proposed project would require filing of Form 7460-1 with the FAA.

The project site is located within an Overflight Easement Review Area (OERA). OERA is the area surrounding San Carlos Airport in which prospective real estate buyers are required to grant avigation easements[14] to the County of San Mateo, the owner and operator of the Airport, stating that the buyer is aware of the nearby airport. The OERA boundary for San Carlos Airport is based on the combination of a 60 dB CNEL noise contour and the FAR Part 77 horizontal, approach, and transitional surface, within the 150-foot elevation above mean sea level boundary depicted in Figure 4.7-1.[15]

An Approach Zone, which must be kept vacant, is designated northwest of the San Carlos Airport in the CLUP. Aircrafts approach San Carlos Airport from the southeast and depart to the northwest. There are three departure paths from the San Carlos Airport: one continuing northwest; one turning north, and the third turning northeast. No approach or departure paths pass over the project site.[16]

There are no private airstrips near the project site; no private airstrips or heliports in the cities of San Carlos, Redwood City, or Belmont.[17]

Emergency Response and Evacuation

In the event of an emergency, the project site has multiple nearby roadways that can serve as emergency access routes to the project site and evacuation routes away from the site. These include two arterial roadways, Holly Street to the northwest and Industrial Road to the southwest, as well as U.S. Highway 101 which is located directly next to the proposed project. [18]

[13] San Mateo County, San Carlos Airport, https://www.smcgov.org/publicworks/san-carlos-airport, accessed March 18, 2022.

[14] An avigation easement is a property right acquired from a land owner for the use of airspace above a specified height. Avigation easements grant the right-of-flight including the right to noise and dust inherent in aircraft flight; the right to restrict or prohibit lights, electromagnetic signals and bird attractants; the right to unobstructed airspace and the right of entry upon the land to exercise those rights.

[15] City/County Association of Governments of San Mateo County, 2015, *Comprehensive Airport Land Use Compatibility Plan For the Environs of San Carlos Airport*, https://ccag.ca.gov/wp-content/uploads/2015/06/Draft-Final-ALUCP-San-Carlos-Airport-062515.pdf, accessed March 7, 2022.

[16] San Mateo County, December 1996, *San Mateo County Comprehensive Airport Land Use Plan,* https://ccag.ca.gov/wp-content/uploads/2014/10/SMC-Airports-CLUP-1996.pdf, accessed February 28, 2022.

[17] Airnav.com, Airport Information, http://www.airnav.com/airports/, accessed February 11, 2022.

[18] City of San Carlos, 2009, *San Carlos 2030 General Plan*, *Circulation & Scenic Highways Element*, page 85.

4.7.2 STANDARDS OF SIGNIFICANCE

Based on the preliminary analysis in the Notice of Preparation (see Appendix A, *Notice of Preparation, Initial Study, and Scoping Comments*, of this Draft EIR), it was determined that development of the proposed project would not result in significant environmental impacts related to the following standards of significance. Therefore, these standards are not discussed further in this EIR:

- Emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

The proposed project would result in a significant impact regarding 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. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
4. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area.
5. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.
6. In combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to hazards and hazardous materials.

4.7.3 IMPACT DISCUSSION

HAZ-1	**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.**

Project Construction

Temporary construction of the proposed project would involve the use of larger amounts of hazardous materials on a daily basis than would operation. Construction of the proposed project would involve grading, excavation, and construction of a new building. Potentially hazardous materials used during construction include substances such as paints, sealants, solvents, adhesives, cleaners, lubricants, greases,

coatings, and diesel fuel. Temporary bulk aboveground storage tanks (e.g., 55-gallon drums) may also be used for fueling and maintenance purposes. There is potential for hazardous materials to spill or to create hazardous conditions. However, the materials used would not be in such quantities or stored in such a manner as to pose a significant safety hazard. These activities would also be short term or one time in nature.

To prevent hazardous conditions, existing local, State, and federal laws—such as those listed under Section 4.7.1.1, *Regulatory Framework*, would be enforced at the construction sites. Compliance with existing regulations would reduce the potential for construction workers and the general public to be exposed to risks related to hazardous materials during construction activities. Cal/OSHA is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. The project developer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337–340). Regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings. Sampling on the project site has revealed the presence of impacted soil, soil gas and groundwater.[19] Compliance with the Soil and Groundwater Management Plan dated March 16, 2021, and any subsequent updates, would ensure that construction workers and the general public are not exposed to risks related to the impacted soil, soil gas, and groundwater in the construction phase of the proposed project.[20]

All spills or leakage of petroleum products during construction activities are required to be immediately contained, the hazardous material identified, and the material remediated in compliance with applicable State and local regulations for the cleanup and disposal of that contaminant. All contaminated waste encountered would be required to be collected and disposed of at an appropriately licensed disposal or treatment facility.

Additionally, any project-related hazardous materials and hazardous wastes would be transported to and/or from the project site in compliance with any applicable State and federal requirements, including the U.S. Department of Transportation regulations in the CFR (Title 49, Hazardous Materials Transportation Act), California Department of Transportation standards, and Cal/OSHA standards.

Any project-related hazardous waste generation, transportation, treatment, storage, and disposal would be conducted in compliance with Subtitle C of RCRA (CFR, Title 40, Part 263), including the management of nonhazardous solid wastes. The proposed project would be designed and constructed in accordance with the specifications and regulations of the San Mateo County Environmental Health Division, which is the designated CUPA and implements State and federal regulations for the following programs: (1) Hazardous Waste Generator, (2) Hazardous Materials Release Response Plans and Inventory Program, (3) California Accidental Release Prevention Program, (4) Aboveground Storage Tank Program, and (5) Underground Storage Tank Program.

[19] Professional Service Industries, February 23, 2021, *Soil-Vapor Sampling and Analyses Report, Proposed Hotel, 501 Industrial Road, San Carlos, California 94070*.

[20] Professional Service Industries, March 16, 2021, *Soil and Groundwater Management Plan, Proposed Hotel, 501 Industrial Road, San Carlos, California 94070*.

If dewatering is necessary during construction, due to the impacted nature of the groundwater beneath the project site, the extracted water would be required by the RWQCB to be treated to its standards (RWQCB Order No. R2-2017-0048 and Order No. R2-2018-0050) before discharge, according to discharge permit requirements. Dewatering, treatment, and discharge would also be short term or one time in nature and would cease upon completion of the proposed project's construction phase. Project construction workers would also be trained in safe handling and hazardous materials use. Therefore, substantial hazards to the public or the environment arising from the routine use of hazardous materials during construction would not occur, and impacts are not anticipated to be significant.

Project Operation

The proposed project is a hotel development that would not include industrial or other land uses involving the storage, use, transport, and disposal of large amounts of hazardous waste.

Operation of the proposed hotel would involve the use of small quantities of hazardous materials for cleaning and maintenance purposes, such as paints, cleaners, solvents, degreasers, fertilizers, pesticides, and other materials used in the regular maintenance and operation of the proposed hotel. Once operational, the proposed project would not constitute a major generator of hazardous materials and/or wastes. Hazardous material consumption within the proposed project primarily would relate to common hazardous wastes. Common hazardous wastes are products typical of everyday use that are labeled toxic, poisonous, combustible, corrosive, flammable, or irritant and are disposed of through the routine operation of any typical urban land use. Some examples include antifreeze, batteries, cleaning supplies, unused noncontrolled pharmaceuticals, fluorescent light bulbs, TVs, computers, and cell phones. By law, these products must be properly recycled or disposed of at a hazardous waste facility.

The operation of the proposed hotel would not involve the routine use, storage, transport, or disposal of hazardous materials; however, should such activities occur with the project area they would be governed by existing regulations of several agencies. Regulations that would be required of those uses that involve transporting, using, or disposing of hazardous materials include RCRA, which provides "cradle to grave" regulation of hazardous wastes; the Comprehensive Environmental Response, Compensation and Liability Act, which regulates closed and abandoned hazardous waste sites; the Hazardous Materials Transportation Act, which governs hazardous materials transportation on U.S. roadways; International Fire Code (IFC), which creates procedures and mechanisms to ensure the safe handling and storage of hazardous materials; CCR Title 22, which regulates the generation, transportation, treatment, storage and disposal of hazardous waste; and CCR Title 27, which regulates the treatment, storage and disposal of solid wastes. For development within the State of California, Government Code Section 65850.2 requires that no final certificate of occupancy or its substantial equivalent be issued unless there is verification that the owner or authorized agent has met or is meeting the applicable requirements of the Health and Safety Code, Division 20, Chapter 6.95, Article 2, Sections 25500 through 25520.

The San Mateo County Environmental Health Division is the CUPA for the City and is responsible for enforcing Hazardous Materials Release Response Plans and Inventory (Chapter 6.95 of the Health and Safety Code). The CUPA is required to regulate hazardous materials business plans and chemical inventory, hazardous waste and tiered permitting, underground storage tanks, and risk management plans. However,

for a hotel land use, there would not be large enough quantities of hazardous substances stored on-site to require a hazardous materials business plan.

Compliance with applicable laws and regulations governing the use, storage, transport, and disposal of hazardous materials would ensure that all potentially hazardous materials associated with the proposed project are used and handled in an appropriate manner and would minimize the potential for safety impacts. Compliance with these laws and regulations is ensured through the City's development review and building plan check process.

Based on the preceding, hazards to the public, or to the environment, arising from an accidental release of hazardous materials during operation are not anticipated to occur. Therefore, the impact would be *less than significant.*

Significance without Mitigation: Less than significant.

HAZ-2 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.

As described in impact discussion HAZ-1, use of hazardous materials during construction could potentially include fuels, lubricants, greases, and coatings. Use of hazardous materials after construction could potentially include cleaning solvents, fertilizers, pesticides, and other materials used in the regular maintenance and operation of the proposed hotel. An accidental release of any of these materials could pose a health hazard to the public.

Existing laws, regulations, policies, and procedures that would serve to prevent a release of hazardous materials include applicable federal, State, and local laws and regulations described in Section 4.7.1.1, *Regulatory Framework*, and the Stormwater Pollution Prevention Plan and best management practices required for the proposed project (see Chapter 4.8, *Hydrology and Water Quality*, of this Draft EIR). Compliance with these existing laws, regulations, policies, and procedures would help to ensure that the proposed project would not create a significant hazard to the public. Therefore, the impact would be *less than significant*.

Significance without Mitigation: Less than significant.

HAZ-3 The proposed project would not create a significant hazard to the public or the environment due to location on a site included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5.

The Phase I ESA prepared for the proposed project included a search of standard federal, State, County, and City environmental records (see Appendix E, *Hazardous Materials*, of this Draft EIR). The database records search found no properties surrounding the project site that could represent a significant

environmental concern. However, soil and vapor sampling and analysis conducted on the project site found concentrations of benzene and vinyl chloride that are above ESL-C screening levels.[21]

These VOCs are speculated to come from the gas station and the subsequent LUST site discussed in Section 4.7.1.2, *Existing Conditions*. The San Francisco Bay Regional Water Quality Control Board reviewed the data from the soil vapor investigation and concluded that under the planned commercial use of the project site, there is not a significant threat to human health or the environment.[22] The LUST case for this property was closed in 1992 and pursuant to Government Code Section 65962.5(c), this site is now listed on the State Water Resources Control Board Geo Tracker Website with a status of completed – case closed.[23]

Based on the regulatory status of the project site, this impact would be *less than significant*.

Significance without Mitigation: Less than significant.

HAZ-4	The proposed project could result in a safety hazard or excessive noise for people residing or working in the project area.

The project site is 0.25 miles southwest of San Carlos Airport, a General Aviation Airport. The San Carlos Airport is home to approximately 500 aircraft and over 25 aviation-related businesses.[24]

Building Height

Figure 4.7-1, *Height Limitation Area for San Carlos Airport*, shows the project site in the area where heights of structures are limited under FAA Part 77 Regulations to avoid hazards to air navigation. Because of the proximity to the San Carlos Airport and a building height greater than 30 feet in height, the project applicant would be required to file Form 74601-1, *Notice of Proposed Construction or Alteration*, with the FAA. The project applicant filed Form 75601-1 on April 29, 2023 and received FAA approval on July 10, 2023.[25] The FAA determined that the proposed project would not pose any hazard to air navigation; therefore, this would be considered a *less-than-significant* impact.

Significance without Mitigation: Less than significant.

[21] Professional Service Industries, February 23, 2021, *Soil-Vapor Sampling and Analyses Report, Proposed Hotel, 501 Industrial Road, San Carlos, California 94070*.

[22] San Francisco Bay Regional Water Quality Control Board, 2022, RE: Request for Agency Oversight, 501 Industrial Road, San Carlos, San Mateo County, dated October 13, 2022.

[23] State Water Resources Control Board Geo Tracker Website, https://geotracker.waterboards.ca.gov/search?CMD=search&case_number=&business_name=&main_street_name=&city=&zip=&county=&SITE_TYPE=LUFT&oilfield=&STATUS=&BRANCH=&MASTER_BASE=&Search=Search, accessed on August 25, 2022.

[24] San Mateo County, San Carlos Airport, https://www.smcgov.org/publicworks/san-carlos-airport, accessed March 18, 2022.

[25] The FAA determination is in contained in Appendix J, *Federal Aviation Administration Determination*, of this Draft EIR.

Aviation-Related Hazards

According to the ALUCP, the site falls within Area B of the Airport Influence Area, and the OERA boundary. For development located within Area B of the AIA, the C/CAG Board shall exercise its statutory duty to review proposed land development proposals, among other plans, ordinances, amendments, and actions. Therefore, C/CAG shall be given the opportunity to review the plans for the proposed project. For projects located within the OERA boundary, the ALUCP guidance states that dedication of an avigation easement, restricting the heights of structures or trees, to the County of San Mateo should be considered as a condition for any discretionary local approval for any property within the OREA boundary.

As described in Chapter 4.10, *Noise*, of this Draft EIR, according to the General Plan Land Use Compatibility Table for Community Noise Environment, hotel land uses are in a "Normally Acceptable" noise environment if the environment is 60 dBA Ldn/CNEL or less. The proposed project approximately 1,000 feet southwest of the San Carlos Airport and, according to the General Plan San Carlos Airport Noise Contour Map, the project site is just outside the 55 dBA CNEL/Ldn noise contour. Therefore, the proposed project would not expose people residing or working in the project area to excessive airport-related noise levels. Nevertheless, due to the C/CAG review requirements outlined in the ACLUP due to the development being within AIA Area B and the OERA, the proposed project would result in potentially *significant* impact.

Impact HAZ-4: The project site falls within the Overflight Easement Review Area (OERA) boundary for San Carlos Airport and mitigation would be required to ensure that the proposed project complies with Airport Land Use Compatibility Plan (ALUCP) guidance intended to prevent significant impacts due to proximity to San Carlos Airport.

Mitigation Measure HAZ-4: The ALUCP guidance states that dedication of an avigation easement, restricting the heights of structures or trees, to the County of San Mateo should be considered as a condition for any discretionary local approval for any property within the OERA boundary. The avigation easement shall:

- Identify the potential hazard associated with the proposed project and its location within protected airspace;
- Identify the airport owner's right to clear or maintain the airspace from potential hazards;
- Identify the right to mark potential obstructions and notify aviators of such hazards; and
- Provide the right to pass within the identified airspace.

Significance with Mitigation: Less than significant.

HAZ-5 The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The proposed project would result in a significant impact if it would involve physical improvements that would impede emergency response to the project site or the immediate vicinity, or if it would otherwise interfere with emergency evacuation plans.

The proposed project would be required to comply with the provisions of the 2022 CFC and the 2022 CBC, which would ensure that building and life safety measures are incorporated into the proposed project and would facilitate implementation of emergency response plans. Future development plans would include fire and emergency access through all phases of construction and operation. During construction, the proposed project would be required to comply with all applicable provisions of the CFC to ensure fire safety during the construction phase. The project plans have been developed to be consistent with requirements for the provision of fire sprinklers, fire department access, fire hydrants, and water supply for fire protection.

As discussed in Section 4.7.1.1, *Regulatory Framework*, the City of San Carlos has prepared an Emergency Response Plan that identifies and allocates resources in response to emergencies—from preparation through recovery. The Emergency Response Plan identifies the City's emergency planning, organizational, and response policies and procedures and how they would be coordinated with emergency responses from other levels of government. The proposed project would not involve physical components that would interfere with the ability of the City, County, and emergency response service providers to implement emergency response activities within the project site or vicinity.

Compliance with applicable laws and regulations regarding emergency preparedness as well as General Plan policies would ensure that the proposed project would not interfere with an adopted emergency response plan or emergency evacuation plan, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

HAZ-6	**The proposed project would not result in cumulatively considerable significant impacts regarding hazards and hazardous materials in combination with past, present, or reasonably foreseeable projects.**

The area considered for cumulative impacts is San Mateo County, which is the service area for the San Mateo County Environmental Health Division, the affected CUPA. Other development projects throughout the county would use, store, transport, and dispose of increased amounts of hazardous materials, and thus could pose substantial risks to the public and the environment. However, the use, storage, transport, and disposal of hazardous materials by other projects would conform with regulations of multiple agencies as described in Section 4.7.1.1, *Regulatory Framework*. Other projects would also have to comply with multiple local regulations associated with location. Compliance with the *Soil and Groundwater Management Plan* dated March 16, 2021, along with any subsequent updates, would ensure that construction workers and the general public are not exposed to risks related to the impacted soil, soil gas, and groundwater in the construction phase of the proposed project and would not contribute to a cumulative impact associated with exposure to hazardous materials.[26]

The project site is located within 2 miles of the San Carlos Airport, a General Aviation Airport. However, as detailed in impact discussion HAZ-4, potential flight hazards would be avoided and an avigation easement

[26] Professional Service Industries, March 16, 2021, *Soil and Groundwater Management Plan, Proposed Hotel, 501 Industrial Road, San Carlos, California 94070.*

restricting the heights of structures would be dedicated to the County of San Mateo pursuant to Mitigation Measure HAZ-4. Therefore, the proposed project would not contribute to a cumulative impact associated with a public or private airport.

Cumulative projects have the potential to interfere with an adopted emergency response plan or emergency evacuation plan; however, all development would be required to comply with the provisions of the local, State, and federal regulations for emergency response plans and emergency evacuation plans. Compliance with these regulations would reduce potential cumulative impacts to less than significant. Moreover, as described in Chapter 4.11, *Transportation*, of this Draft EIR, the proposed project would not result in inadequate emergency access.

Cumulative impacts would be *less than significant* after compliance with regulations, and the proposed project's impacts would not be cumulatively considerable.

Significance without Mitigation: Less than significant.

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4.8 HYDROLOGY AND WATER QUALITY

This chapter describes potential impacts associated with development of the proposed project that are related to hydrology and water quality. Additionally, this chapter describes the environmental setting, including regulatory framework and existing conditions, followed by a discussion of potential environmental impacts related to hydrology and water quality. Potential impacts to storm drain infrastructure are addressed in Chapter 4.12, *Utilities and Service Systems*, of this Draft Environmental Impact Report (EIR).

The information and analysis in this section is based in part on the following technical studies:

- Hydrology Report Calculation, Project Impact on Storm Drain Main, Hotel Indigo, 501 Industrial Road, San Carlos, CA 94070, prepared by SMP Engineers, dated June 2023.
- Hotel Indigo Floodplain Impacts Review Memorandum, Schaaf & Wheeler Consulting Civil Engineers, dated July 27, 2022.
- Stormwater Management Plan, New Hotel Development, Hotel Indigo, 501 Industrial Road, San Carlos, CA 94070, SMP Engineers, dated July 14, 2021.

These studies are included in Appendix F, *Hydrology and Water Quality*, of this Draft EIR.

4.8.1 ENVIRONMENTAL SETTING

4.8.1.1 REGULATORY FRAMEWORK

Federal Regulations

Clean Water Act

Under the Clean Water Act (CWA) of 1977, the United States Environmental Protection Agency (USEPA) seeks to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The statute employs a variety of regulatory and nonregulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The CWA authorizes the USEPA to implement water-quality regulations. The National Pollutant Discharge Elimination System (NPDES) permit program under Section 402 of the CWA controls water pollution by regulating stormwater discharges into the waters of the U.S. 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).

Section 303(d) of the CWA requires that each state identify water bodies or segments of water bodies that are "impaired" (i.e., not meeting one or more of the water-quality standards established by the state). These waters are identified in the Section 303(d) list as waters that are polluted and need further attention to support their beneficial uses. Once the water body or segment is listed, the state is required to establish Total Maximum Daily Load (TMDL) for the pollutant causing the conditions of impairment. A TMDL is an estimate of the total load of pollutants from point, nonpoint, 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 NPDES permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the U.S. from their municipal separate storm sewer systems (MS4s). Under the NPDES program, all facilities that discharge pollutants into waters of the U.S. are required to obtain a NPDES permit. Requirements for stormwater discharges are also regulated under this program. The project site lies within the jurisdiction of the San Francisco Bay RWQCB (Region 2). The City of San Carlos is subject to the requirements of the Municipal Regional Stormwater NPDES Permit (MRP; Order No. R2-2022-0018; NPDES Permit No. CAS612008), which became effective on July 1, 2022.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program, which provides subsidized flood insurance to communities that comply with FEMA regulations regarding development in flood plains. 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 established by FEMA is the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year.

State Regulations

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act (Water Code Section 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 an 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.

SWRCB General Construction Permit

The SWRCB adopted the revised Statewide Construction General Permit on September 8, 2022 (Order WQ 2022-0057-DWQ), which will become effective on September 1, 2023. Under the terms of the permit, applicants must file Permit Registration Documents (PRD) with the SWRCB prior to the start of construction. The PRDs include a Notice of Intent, risk assessment, site map, Stormwater Pollution Prevention Plan (SWPPP), annual fee, and a signed certification statement. The PRDs are submitted electronically to the SWRCB via the Stormwater Multiple Application and Report Tracking System (SMARTS) website.

Applicants must also demonstrate conformance with applicable best management practices (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 weekly visual monitoring program and BMP inspections prior to, during, and after qualifying precipitation events. Water quality monitoring is also required with a schedule based on the risk level of the site.

SWRCB Trash Amendments

On April 7, 2015, the SWRCB adopted an amendment to the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) to control trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California. Together, they are collectively referred to as "the Trash Amendments." The Trash Amendments apply to all surface waters of California and include a land-use-based compliance approach to focus trash controls on areas with high trash-generation rates. Areas such as high-density residential, industrial, commercial, mixed urban, and public transportation stations are considered priority land uses. There are two compliance tracks for Phase I and Phase II MS4 permittees:

- Track 1: Permittees install, operate, and maintain a network of certified full capture systems in storm drains that capture runoff from priority land uses.
- Track 2: Permittees must implement a plan with a combination of full capture systems, multi-benefit projects, institutional controls, and/or other treatment methods that have the same effectiveness as Track 1 methods.

The Trash Amendments provide a framework for permittees to implement its provisions. Full compliance must occur within 10 years of the permit and permittees must also meet interim milestones such as average load reductions of 10 percent per year.

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 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 Department of Water Resources (DWR). The 2015 revisions to the MWELO improve water conservation in the landscaping sector by promoting efficient landscapes in new developments and retrofitted landscapes. The revisions increase water efficiency by requiring more efficient irrigation systems, incentives for grey water usage, improvements in on-site stormwater capture, and limiting the portion of landscapes that can be covered in high-water-use plants and turf. New development projects that include landscape areas of 500 square feet or more are subject to the MWELO. This applies to residential, commercial, industrial, and institutional projects that require a permit, plan check, or design review. The

previous landscape size threshold for new development projects ranged from 2,500 to 5,000 square feet.[1] The size threshold for rehabilitated landscapes has not changed and remains at 2,500 square feet.

The City of San Carlos has enacted these provisions in the San Carlos Municipal Code (SCMC) Section 18.18.080, *Water-Efficient Landscaping and Irrigation*.

Regional Regulations

Municipal Regional Stormwater NPDES Permit

As stated previously, municipal stormwater discharge in the City of San Carlos is subject to the newly revised Waste Discharge Requirements (WDRs) of the MS4 Permit No. CAS612008 (Order Number R2-2022-0018), which became effective on July 1, 2022. Provision C.3 of the MRP requirements applies to all new development or redevelopment projects that create or replace 5,000 square feet of impervious surfaces. Provision C.3 of the MRP also mandates that new development projects that meet certain criteria: (1) incorporate site design, source control, and stormwater treatment measures into the project design; (2) minimize the discharge of pollutants in stormwater runoff and non-stormwater discharge; and (3) minimize the rate and volume of stormwater runoff under post-development conditions. Low-impact development (LID) methods are the primary mechanisms for implementing such controls.

New development projects must design and construct stormwater treatment systems that capture a percentage of the flow rate or volume from a specified storm event based on the sizing criteria described in the C.3 provisions of the MRP. The treatment systems use LID measures that include rainwater harvesting, infiltration, evapotranspiration, and biotreatment/bioretention.

In order to comply with Provision C.3 of the MRP, the project applicant would be required to submit a Stormwater Management Plan (SWMP) with building plans, to be reviewed and approved by the City of San Carlos' Public Works Department. The SWMP must be prepared under the direction of and certified by a licensed and qualified professional, which includes civil engineers, architects, or landscape architects.

San Mateo Countywide Water Pollution Prevention Program

The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) is a partnership of the City/County Association of Governments (C/CAG), 20 incorporated cities within the county, and the County of San Mateo, which share a common NPDES permit. This partnership also relies on each of the municipalities to implement local stormwater pollution prevention and control activities for its own local storm drain systems. The SMCWPPP's Stormwater Resource Plan (SRP) outlines priorities, key elements, strategies, and evaluation methods to implement the SMCWPPP. The comprehensive program includes pollution reduction activities for construction sites, industrial sites, illegal discharges and illicit connections, new development, and municipal operations. The SRP also includes a public education effort, target pollutant reduction strategies, and watershed assessment and monitoring. The SRP, in

[1] California Department of Water Resources, 2022, Model Water Efficient Landscape Ordinance, https://water.ca.gov/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/Model-Water-Efficient-Landscape-Ordinance, accessed on February 10, 2022.

conjunction with the NPDES permit adopted by the Water Board, is designed to enable SMCWPPP to meet the requirements of the CWA.

Post-construction stormwater quality requirements pursuant to the SMCWPPP are described in the C.3 Regulated Projects Guide (Version 1.0) issued in January 2020.[2] The C.3 Regulated Projects Guide includes instructions for implementing site design measures, source controls, stormwater treatment measures, construction site controls, and low-impact development measures.

San Mateo County Storm Water Resources Plan

The San Mateo County Stormwater Resource Plan (SRP) is a comprehensive document that addresses specific stormwater runoff issues in the County with a watershed-based approach. The main goals of the SRP are to identify and prioritize opportunities to better utilize stormwater as a resource in San Mateo County through a detailed analysis of watershed processes, surface and groundwater resources, input from stakeholders and the public, and analysis of multiple benefits that can be achieved through strategically planned stormwater management projects. These projects aim to capture and manage stormwater more sustainably, reduce flooding and pollution associated with runoff, improve biological functioning of plants, soils, and other natural infrastructure, and provide many community benefits, including cleaner air and water and enhanced aesthetic value of local streets and neighborhoods. Senate Bill 985 (Pavley, 2014) requires SRPs to be developed to be eligible for funding from future State bond measures for stormwater and dry weather capture projects.[3]

San Francisco Bay RWQCB Basin Plan

The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the RWQCB's master water quality control planning document and was last updated in November 2019.[4] The Basin Plan gives direction on the beneficial uses of the state waters within Region 2, describes the water quality that must be maintained to support such uses, and provides programs, projects, and other actions necessary to achieve the standards established in the Basin Plan.

Local Regulations

City of San Carlos General Plan

Policies of the San Carlos General Plan relevant to hydrology, water quality, and flood hazards are listed in Table 4.8-1, *City of San Carlos 2030 General Plan Policies Relevant to Hydrology and Water Quality*.

[2] San Mateo Countywide Water Pollution Prevention Program, January 2020, *C.3 Regulated Projects Guide*, https://www.flowstobay.org/wp-content/uploads/2020/03/SMCWPPP-C.3-Regulated-Project-Guide-High-Res_021220_0.pdf, accessed August 22, 2022.

[3] City/County Association of Governments of San Mateo, 2022, San Mateo Storm Water Resources Plan, https://ccag.ca.gov/srp/, accessed August 22, 2022.

[4] State Water Resources Control Board, March 2022, Basin Planning, https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html, accessed August 22, 2022.

TABLE 4.8-1 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO HYDROLOGY AND WATER QUALITY

Policy Number	Policy Text
Chapter 6, Environmental Management (EM) Element (Hydrology and Water Quality)	
Policy EM-5.1	Reduce the discharge of toxic materials into the city's sanitary sewer and stormwater collection system by promoting the use of Best Management Practices (BMPs).
Policy EM-5.3	Promote the conservation and efficient use of water in new and existing residences and by commercial and industrial consumers.
Policy EM-5.4	Encourage the use of drought-tolerant plants and efficient watering techniques for all City landscaping.
Policy EM-5.7	Encourage site designs that manage the quantity and quality of storm water runoff.
Policy EM-5.10	Require the evaluation of potential groundwater depletion that could occur from new development through dewatering.
Chapter 8, Community Safety and Services (CSS) Element (Flood Hazards)	
Policy CSS-2.1	Improve and maintain City storm drainage infrastructure in a manner that reduces flood hazards.
Policy CSS-2.2	Maintain a healthy riparian corridor in City-maintained flood control channels to reduce the risk of flooding due to erosion, siltation, blockage and heavy undergrowth.
Policy CSS-2.3	Maintain a strong and enforceable Stream Development and Maintenance Ordinance for all city creeks and their tributaries.
Policy CSS-2.4	Minimize impervious surfaces to reduce stormwater runoff and increase flood protection.
Policy CSS-2.5	Evaluate flood hazards on a watershed level, taking into account all sources of water and the eventual end point of each source.
Policy CSS-2.9	Continue to work with appropriate local, State and federal agencies (particularly FEMA) to maintain the most current flood hazard and flood-plain information and use it as a basis for project review and to guide development in accordance with federal, State and local standards.
Policy CSS-2.12	Incorporate stormwater drainage systems in development projects to effectively control the rate and amount of runoff, so as to prevent increases in downstream flooding potential.
Policy CSS-2.13	Continue to participate in the National Flood Insurance Program. To this end, the City shall ensure that its regulations are in full compliance with standards adopted by the Federal Emergency Management Agency.

Source: City of San Carlos, 2009, *2030 General Plan*.

City of San Carlos Municipal Code

The following chapters of the SCMC contain provisions pertaining to hydrology and water quality issues:

- Chapter 12.08, *Grading and Excavation*. A grading permit must be submitted and approved by the City prior to the start of construction activities and must include an interim and final erosion and sediment control plan. In addition, no grading shall be conducted in such a manner as to alter the established gradient of natural drainage channels in a manner to cause excessive erosion or flooding.
- Chapter 13.14, *Stormwater Management and Discharge Control*. The discharge of non-stormwater discharges to the City storm drain system is prohibited. All projects that will or may result in pollutants entering the City storm drain system must comply with Section 13.14.110, *Reduction of pollutants in stormwater,* to reduce such pollutants, including standards for parking lots and similar structures, and BMPs for new development and redevelopment projects. In addition, this chapter provides for watercourse protection (Section 13.14.120, *Watercourse protection*) to ensure that all watercourses are kept and maintained reasonably free from pollutants and flow restrictions and for the maintenance of healthy bank vegetation.

- Chapter 15.56, *Flood Damage Prevention*. This chapter promotes public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas. Nonresidential construction shall either be elevated to or above the base flood elevation or be floodproofed so that the below the base flood level the structure is watertight with walls substantially impermeable to the passage of water or have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
- Chapter 17.16.270, *Storm Drainage Facilities*. For any subdivision, the subdivider shall dedicate rights-of-way for storm drainage purposes that conform to the boundary lines of any natural watercourse, channel, stream, or creek that traverses the subdivision.
- Chapter 18.18.080, *Water Efficient Landscaping*. This chapter establishes water-efficient landscape and irrigation guidelines to promote the conservation and efficient use of water and minimize runoff with the use of automatic control systems.

4.8.1.2 EXISTING CONDITIONS

Regional Hydrology

Climate

The climate in San Carlos is characterized as a cold-summer Mediterranean climate, with warm, dry summers and cool, moist winters. The average rainfall in San Carlos is 27 inches per year and almost all precipitation falls between the months of October and April. The average low is reported at 44.6°F in January while the average high is 73.2°F in September.[5] The temperatures in San Carlos are moderate compared to inland locations due to its proximity to the Pacific Ocean and San Francisco Bay.

Watersheds

The City of San Carlos is within the San Francisco Bay Estuaries watershed, which is part of the larger San Francisco Bay Watershed that covers 4,600 square miles.[6] The San Francisco Bay Estuaries watershed is approximately 154 square miles and includes lowlands and Bay-facing estuaries and wetlands surrounding San Francisco Bay.[7] The project site drains to the north to Phelps Slough, which flows into Steinberger Slough before flowing to San Francisco Bay. The drainage area surrounding the project site is relatively flat and is dominated by urban development in San Carlos and neighboring communities.

[5] USA.Com, San Carlos City, California: Historical Weather Report, http://www.usa.com/san-carlos-ca-weather.htm, accessed March 16, 2022.

[6] United States Environmental Protection Agency, 2022, San Francisco Bay Watershed, https://www.epa.gov/sfbay-delta/about-watershed#sfb, accessed August 22, 2022.

[7] UC Davis, 2022, California Water Indicators Portal, https://indicators.ucdavis.edu/cwip/huc/180500041001, accessed August 29, 2022.

Project Site Hydrology

Water Quality

Stormwater runoff pollutants vary based on land use, topography, the amount of impervious surface, and the amount and frequency of rainfall and irrigation practices. Runoff from commercial land uses can contain oil and grease, pathogens, pesticides, herbicides, organic compounds, sediment, nutrients, trash and debris, and other oxygen-demanding substances. 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 overflow runoff from the bioretention areas and flow-through planters at the proposed development would flow into the City's 24-inch storm drain in Industrial Road and eventually discharge to the Pulgas Creek Pump Station and into Steinberger Slough and Lower San Francisco Bay. The beneficial uses of these surface water bodies and groundwater have been designated in the Water Quality Control Plan for the San Francisco Bay Region (Basin Plan), as listed in Table 4.8-2, *Designated Beneficial Uses of Water Bodies in the Project Area*.[8]

TABLE 4.8-2 DESIGNATED BENEFICIAL USES OF WATER BODIES IN THE PROJECT AREA

Water Body	Designated Beneficial Use
Surface Water	
Steinberger Slough	EST, RARE, WILD, REC-1, REC-2
Lower San Francisco Bay	IND, COMM, SHELL, EST, MIGR, RARE, SPWN, WILD, REC-1, REC-2, NAV
Groundwater	
San Mateo Plain, Santa Clara Valley	MUN, PRO, IND, AGR (potential)

Notes: Municipal and Domestic Water Supply (MUN), Agricultural Supply (AGR), Industrial Process Water Supply (PRO), Industrial Service Water Supply (IND) Commercial and Sport Fishing (COMM), Shellfish Harvesting (SHELL), Estuarine Habitat (EST), Fish Migration (MIGR), Preservation of Rare and Endangered Species (RARE), Fish Spawning (SPWN), Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD), Water Contact Recreation (REC-1), Noncontact Water Recreation (REC-2), Navigation (NAV).
Source: San Francisco Bay RWQCB, 2019, *Water Quality Control Plan (Basin Plan).*

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, then it is listed as an impaired water body under Section 303(d) of the CWA. For Section 303(d) listed water bodies, a limit is established, which defines the

[8] San Francisco Bay Area Regional Water Quality Control Board, *Water Quality Control Plan for San Francisco Bay Area*, https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/tab/tab_2-01.pdf, accessed August 22, 2022.

maximum amount of pollutants that can be received by that water body. No water bodies in the City of San Carlos are listed on the CWA Section 303(d) List of Water Quality Limited Segments.[9]

However, overflow stormwater runoff from the project site would ultimately drain into Lower San Franciso Bay via the City's 24-inch storm drain beneath Industrial Road, which discharges into Steinberger Slough and ultimately Lower San Francisco Bay. Lower San Francisco Bay is listed on the Section 303(d) List of Water Quality Limited Segments for chlordane, DDT, dieldrin, dioxin compounds, furan compounds, invasive species, mercury, polychlorinated biphenyls (PCBs), and trash.[10] Chlordane, DDT, and dieldrin are organochlorine insecticides.

Groundwater

Most of the City of San Carlos is within the San Mateo Plain Subbasin of the Santa Clara Valley Groundwater Basin, including the project site.[11] The California Water Service (Cal Water) Mid-Peninsula District supplies the City of San Carlos with water purchased from the San Francisco Public Utilities Commission (SFPUC). The SFPUC's water supplies consist of surface water imported from the Sierra Nevada via the Hetch Hetchy Project and local surface water from the San Francisco Bay Region.[12] Groundwater is not used for municipal water supply in San Carlos.[13]

It is likely that shallow groundwater will be present during excavation or grading activities. According to a subsurface exploration at the project site conducted in 2019, groundwater was encountered at depths ranging from 6.0 to 7.5 feet below ground surface (bgs).[14] Historic high groundwater levels are estimated to be at depths of about 5 feet bgs. Therefore, it is anticipated that some construction dewatering may be necessary depending on the planned excavation depths.

Flood Hazards

100-Year Flood Zone

FEMA is responsible for mapping 100-year floodplain zones that assist cities in mitigating flooding hazards through land use planning. FEMA also establishes regulations for any construction within a 100-year

[9] State Water Resources Control Board, October 2021, 2018 Integrated Report Map, https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report/2018IR_map.html, accessed August 22, 2022.

[10] State Water Resources Control Board, October 2021, 2018 Integrated Report Map, https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report/2018IR_map.html, accessed August 22, 2022.

[11] San Mateo County, 2019, *San Mateo County GIS open data: San Mateo Plain Subbasin*, https://data-smcmaps.opendata.arcgis.com/datasets/san-mateo-plain-subbasin?geometry=-122.296%2C37.491%2C-122.242%2C37.503, accessed August 22, 2022.

[12] California Water Service, 2021, *2020 Urban Water Management Plan: Mid-Peninsula District,* https://www.calwater.com/docs/uwmp2020/MPS_2020_UWMP_FINAL.pdf, accessed August 22, 2022.

[13] California Water Service, 2021, *2020 Urban Water Management Plan: Mid-Peninsula District*, https://www.calwater.com/docs/uwmp2020/MPS_2020_UWMP_FINAL.pdf, accessed August 22, 2022.

[14] Professional Service Industrial, Inc., *Geotechnical Engineering Report for Proposed Hotel Indigo, 501 Industrial Road, San Carlos, California*, dated October 21, 2019.

floodplain, as specified in the City's Flood Hazard Prevention section of the SCMC. According to FEMA Flood Insurance Rate Map (FIRM) No. 06081C0169G dated April 5, 2019, the majority of the project site is within a 100-year flood zone designated as Zone AE with a base flood elevation of 10 feet.[15] The northern portion of the project site is within Zone X, the 500-year floodplain, which is an area of reduced flood risk due to protection from levees. The FEMA flood zones with respect to the project site are depicted in Figure 4.8-1, *FEMA Flood Zones*.

Dam Inundation Areas

Dam inundation areas are areas where flooding could occur due to failure from an upstream dam. According to the San Carlos 2030 General Plan, there are no dam inundation zones within the City of San Carlos.[16] Therefore, the project site would not be impacted by flooding due to a dam failure.

Tsunami and Seiches

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 project site is not in a tsunami inundation area. The nearest inundation area is about 0.3 mile to the east, beyond U.S. Highway 101, on the eastern portion of San Carlos Airport.[17]

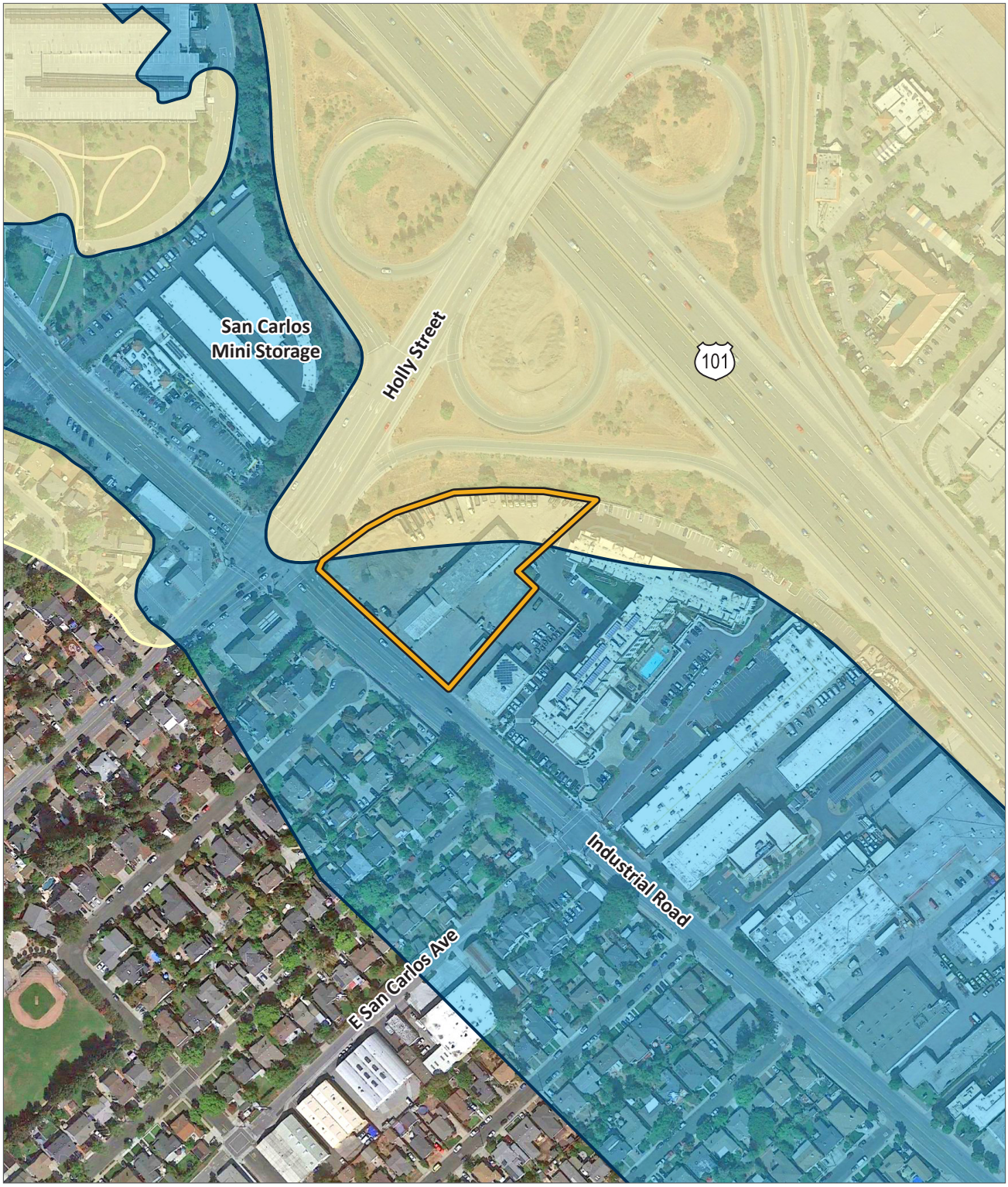
A seiche is an oscillation wave generated in a closed or partially closed body of water, which can be compared to the back-and-forth sloshing in a bathtub. Seiches can be caused by winds, changes in atmospheric pressure, underwater earthquakes, tsunamis, or landslides into the water body. Bodies of water, such as bays, harbors, reservoirs, ponds, and swimming pools can experience seiche waves up to several feet in height during a strong earthquake. The water sloshes back and forth until the wave motion is dampened by friction. However, for a seiche to occur in San Francisco Bay, the wave frequency of a seiche would have to match the resonance frequency of the bay. The typical frequency of a seiche is a few minutes up to several hours, and the resonance frequency of San Francisco Bay is somewhere between one to ten hours. Therefore, seiches typically have frequencies too short to resonate within San Francisco Bay and a seiche in the project site vicinity is unlikely.[18]

[15] Federal Emergency Management Agency, 2021, *FEMA Flood Map Service Center: Search by Address*, https://msc.fema.gov/portal/home, accessed August 22, 2022.

[16] City of San Carlos, 2009, *San Carlos 2030 General Plan,* Figure 8-6*, Dam Inundation Areas*, page 195.

[17] California Department of Conservation, 2019, *San Mateo County Tsunami Hazard Areas* https https://www.conservation.ca.gov/cgs/tsunami/maps/san-mateo, accessed August 23, 2022.

[18] Borrero, Jose, Lori Dengler, Burak Uslu, and Costas Synolakis, 2006. Numerical Modeling of Tsunami Effects at Marine Oil Terminals in San Francisco Bay.



Source: Google Earth, 2021. PlaceWorks, 2021.

100-year flood zone AE

Area Reduced Flood Risk Due to Levee

Project Site Boundary

0 300
Scale (Feet)

Figure 4.8-1
FEMA Flood Zones

4.8.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant hydrology and water quality impact if it would:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water 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 offsite;
    iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    iv. impede or redirect flood flows.
4. In 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 cumulative impacts with respect to hydrology and water quality.

4.8.3 IMPACT DISCUSSION

HYD-1	**The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.**

Construction

Demolition, grading, excavation, and construction activities associated with the proposed project would have the potential to impact water quality through soil erosion and increasing the amount of silt and debris carried in runoff. The use of construction materials, such as fuels, solvents, and paints, may present a risk to surface water quality. Additionally, 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.

Development of the proposed project would require compliance with the Construction General Permit (CGP) Water Quality Order 2022-0057-DWQ, because the project would disturb one or more acres of land

during construction. This requires the preparation and implementation of a SWPPP and 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 CGP also requires that, prior to the start of construction activities, the project applicant file PRDs with the SWRCB, which includes a Notice of Intent, risk assessment, site map, annual fee, signed certification statement, and SWPPP. The construction contractor is required to maintain a copy of the SWPPP at the project site at all times 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, which include preparation of the SWPPP.

In addition, the City of San Carlos requires that an erosion and sediment control plan be submitted prior to grading plan approval and the issuance of a grading permit. Implementation of the erosion control plan would address potential erosion issues associated with the proposed grading and site preparation activities.

During a geotechnical evaluation, groundwater was encountered on the project site with depths ranging from 6 to 7.5 feet below ground level.[19] Therefore, temporary dewatering may be necessary for planned excavations below the water table and provisions to minimize the potential for water quality impacts must be implemented with construction dewatering. Because the project site is a former Leaking Underground Storage Tank (LUST) site, it is possible that shallow groundwater may be contaminated. Therefore, extracted groundwater encountered during construction activities would need to be treated to RWQCB standards prior to discharge, as per RWQCB Order No. R2-2017-0048, as amended by Order. No. R2-2018-0050. These requirements would ensure that discharged water does not pose a risk to water quality. In addition, the proposed project would be subject to SWPPP requirements, which include measures for spill prevention, control, and containment that would prevent potential construction pollutants from leaching into the shallow groundwater.

Submittal of the PRDs and implementation of the SWPPP throughout the construction phase of development would address anticipated pollutants of concern from construction activities. Furthermore, the proposed project would abide by the requirements of the SCMC Chapter 13.14, which specifies that any construction contractor performing work in the City must provide filter materials at catch basins to prevent any debris or dirt from entering the City's storm drain system. Compliance with existing State and local regulatory requirements and ordinances would ensure that water quality impacts associated with construction activities would be *less than significant*.

Operations

Once the proposed project has been constructed, urban runoff could include a variety of contaminants that could impact water quality. Runoff from buildings and parking lots typically contain oils, grease, fuel, antifreeze, and byproducts of combustion (such as lead, cadmium, nickel, and other metals), as well as

[19] Professional Service Industrial, Inc., *Geotechnical Engineering Report for Proposed Hotel Indigo, 501 Industrial Road, San Carlos, California*, dated October 21, 2019.

fertilizers, herbicides, pesticides, and other pollutants. Precipitation at the beginning of the rainy season may result in an initial stormwater runoff (first flush) with high pollutant concentrations.

According to the San Francisco Bay RWQCB MS4 permit, the proposed project would be classified as a Priority Development Project because it would create more than 5,000 square feet of impervious surfaces. Therefore, a preliminary SWMP and a final SWMP would be required for the proposed project. A preliminary SWMP has been prepared by SMP Engineers (see Appendix F, *Hydrology and Water Quality*, of this Draft EIR) and a final SWMP would be submitted to the City prior to the start of construction.

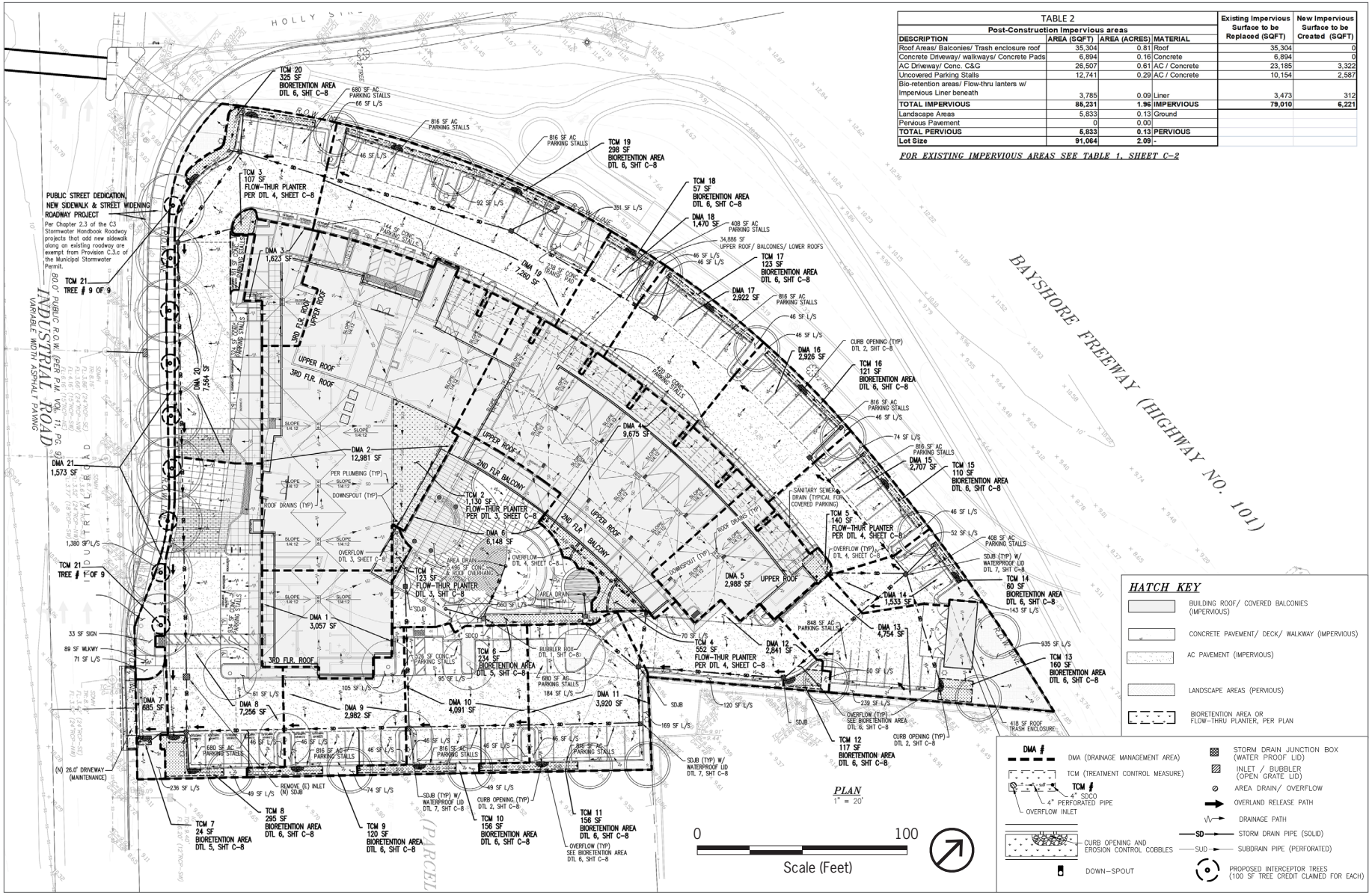
The preliminary SWMP for the proposed project includes the following site design and source-control measures:

- Runoff would be conveyed to bioretention areas along the north and east property lines. An impermeable liner would be placed below the bioretention areas to avoid infiltration to native soil.
- Flow-through planters would be incorporated around the building to collect runoff from roof areas and balconies.
- Collected runoff from flow-through planters and overflow runoff from the bioretention areas would flow via internal storm drains to the City's existing storm drain beneath Industrial Road.
- Landscaping would be designed with an efficient irrigation system to minimize runoff, promote surface infiltration where appropriate, and minimize the use of fertilizers and pesticides.
- Where landscape areas would be used to retain stormwater, plants would be specified that are tolerant of saturated conditions.
- Plants and trees would be selected that are appropriate for site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, disease tolerance, drought tolerance, and attractiveness to beneficial insects.
- On-site storm drain inlets would be clearly marked with the words "No Dumping - Drains to Creek" or similar message.
- Refuse would be disposed of in designated collection areas with adequate numbers of refuse and recycling receptacles and signs with the words "Do not dump hazardous materials here."

The proposed project would incorporate five flow-through planters and 15 bioretention areas to treat and detain the runoff from proposed impervious surfaces. Runoff from the building roofs, balconies, decks, and at-grade hardscape would be directed to flow-through planters. Stormwater from 15 drainage areas would be directed to bioretention areas scattered throughout the project site that provide soil and plant filtration measures to remove pollutants. All site landscape areas would be self-treating with any runoff diverted to the existing City's storm drain system in Industrial Road through a new internal storm drain system.

The preliminary SWMP prepared for the proposed project divides the project site into 21 drainage management areas (DMAs) as shown in Figure 4.8-2, *Stormwater Control Plan.* Table 4.8-3, *Treatment Area*, shows the site design BMP chosen for each DMA, the contributing impervious area within each DMA, the required treatment area, and the provided treatment area.

HYDROLOGY AND WATER QUALITY



Source: SMP Engineers | Civil Engineers, 2021.

Figure 4.8-2
Stormwater Control Plan

TABLE 4.8-3 TREATMENT AREA

DMA Number	Type of BMP	Contributing Impervious Area (Square Feet)	Required Treatment Area (Square Feet)	Provided Treatment Area (Square Feet)
1	Flow-Through Planter	3,057	122	123
2	Flow-Through Planter	12,981	519	1,130
3	Flow-Through Planter	1,624	65	107
4	Flow-Through Planter	9,675	387	552
5	Flow-Through Planter	2,988	120	140
6	Bioretention Area w/ underdrain	5,588	226	234
7	Bioretention Area w/ underdrain	449	19	24
8	Bioretention Area w/ underdrain	7,100	285	295
9	Bioretention Area w/ underdrain	2,711	110	120
10	Bioretention Area w/ underdrain	3,855	155	156
11	Bioretention Area w/ underdrain	3,628	147	156
12	Bioretention Area w/ underdrain	2,591	105	117
13	Bioretention Area w/ underdrain	3,580	148	160
14	Bioretention Area w/ underdrain	1,338	54	60
15	Bioretention Area w/ underdrain	2,587	104	110
16	Bioretention Area w/ underdrain	2,834	114	121
17	Bioretention Area w/ underdrain	2,830	114	123
18	Bioretention Area w/ underdrain	1,424	57	57
19	Bioretention Area w/ underdrain	6,771	273	298
20	Bioretention Area w/ underdrain	7,498	300	325
21	Interceptor Trees	122	n/a	n/a
	Total	85,231	3,424	4,408[a]

Notes:
[a] The provided treatment area sums to 4,408 SF. The 2021 Preliminary Stormwater Management Plan, Table 1, incorrectly sums the treatment area to 3,785 SF.
Source: SMP Engineers, 2021, Preliminary Stormwater Management Plan for New Hotel Project, Hotel Indigo, 501 Industrial Road, San Carlos, CA.

DMAs 1 through 5 would be roofs areas to treated with flow-through planters. DMA 6 would be a courtyard area and DMAs 7 through 20 would consist of parking lots/driveways, asphalt or concrete paving, and sidewalks. Runoff from these areas will be collected via catch basins and piped to the bioretention areas for treatment. Portions of the proposed building's lower roof, trash enclosure roof and equipment concrete pads would also drain to DMAs 7 to 20. Once treated, the stormwater would be routed through the internal storm drain system and diverted to the existing storm drain in Industrial Road. DMA 21 would be a strip of landscape fronting Industrial Road with a small ADA walkway connecting the project site to the public sidewalk. Runoff from DMA 21 would be treated with interceptor trees along the project site frontage.[20] As shown in Table 4.8-3, these stormwater treatment measures would provide the

[20] SMP Engineers, 2021, *Stormwater Management Plan, New Hotel Development, Hotel Indigo, 501 Industrial Road, San Carlos, CA 94070*, dated July 14, 2021.

required bioretention, and the water quality of the collected runoff would also be enhanced prior to discharge into the City's storm drain system.

It is the responsibility of the property owner to install and maintain the post-construction BMPs in accordance with the SWMP. The final SWMP would provide an Operations and Maintenance Plan that includes the inspection frequency and maintenance schedule for the BMPs and would also contain the Owner's Certification that the operation and maintenance of the BMPs would be the owner's responsibility for perpetuity.

Operational water quality impacts would be less than significant with implementation and maintenance of the BMPs, bioretention areas, and flow-through planters described previously. Also, the proposed project would comply with all State and local regulations regarding stormwater runoff during construction and operational phases of the proposed project. Therefore, water quality standards and waste discharge requirements will not be exceeded, and surface water and groundwater quality will not be degraded. Impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

HYD-2	**The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.**

The project site is located within Cal Water's service area and is managed by Cal Water Mid-Peninsula District.[21] Groundwater is not used for municipal water supply. The proposed project would connect to the existing water main beneath Industrial Road and direct additions or withdrawals of groundwater are not proposed by the project. Therefore, the proposed project would not impact groundwater recharge areas.

Construction dewatering may be required due to the shallow depth of groundwater beneath the project site. Because there is the potential for groundwater contamination due to previous site uses, any extracted groundwater would need to be held on-site and tested for contaminants, as per the WDRs contained in Order Nos. R2-2017-0048 and R2-2018-0050. Aboveground Baker Tanks would be used for the storage of groundwater generated from on-site excavations and samples of the groundwater would be collected and tested for constituents of concern.[22] Compliance with these existing required procedures would ensure that discharged water does not pose a risk to water quality. Limits on the quantity of groundwater discharge during dewatering and the temporary nature of the construction dewatering would assure that substantial lowering of the groundwater table would not occur. In addition, the proposed project would be subject to SWPPP requirements, which include measures for spill prevention,

[21] City of San Carlos, 2009, *San Carlos 2030 General Plan EIR*, Utilities and Infrastructure, page 4.13-4.

[22] Professional Service Industrial, Inc., *Soil and Groundwater Management Plan for Proposed Hotel Indigo, 501 Industrial Road, San Carlos, California*, dated March 16, 2021.

control, and containment that would prevent potential construction pollutants from leaching into the shallow groundwater.

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 and this impact would therefore be *less than significant*.

Significance without Mitigation: Less than significant.

HYD-3	**The proposed 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 offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows.**

Erosion and Siltation

The proposed project would involve site improvements that require grading, excavation, and soil exposure during construction, with the potential for erosion or siltation to occur. If not controlled, the transport of these materials to local waterways could temporarily increase suspended sediment concentrations and release pollutants attached to sediment particles. To minimize this impact, the proposed project would be required to comply with the requirements in the State's CGP, including preparation of a Notice of Intent and SWPPP prior to the start of construction activities (see impact discussion HYD-1). The SWPPP would describe the BMPs to be implemented during the project's construction activities. The implementation of the BMPs during the construction phase would include the following measures to minimize erosion and siltation:

- Minimize disturbed areas of the site.
- Install on-site sediment basins to prevent off-site migration of erodible materials.
- Implement dust control measures, such as silt fences and regular watering of open areas.
- Stabilize construction entrances/exits.
- Install storm drain inlet protection measures.
- Install sediment control measures around the site, including silt fences or gravel bag barriers.

In addition, the City requires preparation of an erosion and sediment control plan and implementation of BMPs to control erosion, debris, and construction-related pollutants. Compliance with these regulations would further reduce the potential for erosion and siltation during the construction phase.

For the operational phase, the San Francisco Bay RWQCB MS4 permit mandates the preparation of a preliminary SWMP and a final SWMP, which also contains source-control and stormwater treatment measures to minimize the potential for erosion and siltation to occur.

Collectively, implementation of the BMPs outlined in the SWPPP, the erosion and sediment control plan, and the SWMP would address the anticipated and expected erosion and siltation impacts during the construction and operational phases of the proposed project. Therefore, the proposed project would not result in substantial erosion or siltation on- or off-site, and the impact would be *less than significant*.

Surface Runoff and Capacity of the Storm Drain System

Project development would involve the construction of an internal network of storm drains, catch basins, and landscaping areas in 21 drainage areas with 15 on-site bioretention areas and five flow-through planter areas to temporarily retain, treat, and ultimately convey on-site flows (see Figure 4.8-2, *Stormwater Control Plan*). Excess runoff from these areas would be diverted to the City's storm drain system in Industrial Road along with any runoff from the self-treating landscaped areas.

As per the City's storm drainage policy, post-development peak flow rates and velocities were estimated to determine if the City's 24-inch storm drain would have the capacity to convey the runoff from a 10-year storm event. Peak flow calculations are provided in the Hydrology Report Calculation, Project Impact on Storm Drain Main, Industrial Road (Appendix F, *Hydrology and Water Quality*, of this Draft EIR). Peak flow rates were calculated using the Rational Method and the methodology provided in the San Mateo County Drainage Manual.

With the proposed on-site stormwater detention features, the peak flow rates from the project site into the 24-inch storm drain beneath Industrial Road would be less than peak flow rates under existing conditions for up to the 10-year, 60-minute storm event.[23] Therefore, the existing 24-inch reinforced concrete pipe has the capacity to collect and convey post-development peak flow rates without impacting downstream conditions.

Therefore, the proposed project would not exceed the capacity of the City's storm drain system and would not create runoff that would cause on-site or off-site flooding. With the project's proposed treatment features, this impact is *less than significant*.

Flood Flows

According to FEMA FIRM No. 06081C0169G dated April 5, 2019, the project site is within a 100-year flood zone designated as Zone AE with a base flood elevation of 10 feet. The elevations at the site range from approximately 9 to 10 feet above mean sea level, so flooding could occur in the event of a 100-year storm. The proposed project has been designed in accordance with FEMA and City requirements to minimize the potential for on-site and off-site flooding.[24] The finished floor elevation has been set at 13 feet, which is three feet above the base flood elevation, as requested by the City.

[23] SMP Engineers, 2023. Hydrology Report Calculation, Project Impact on Storm Drain Main, Industrial Road. Hotel Indigo, 501 Industrial Road, San Carlos, CA. Dated June 2023.

[24] Schaaf & Wheeler Consulting Civil Engineers, 2022. *Hotel Indigo Floodplain Impacts Review Memorandum*, dated July 27, 2022.

Construction within special flood hazard zones is governed by SCMC Chapter 15.56. Additionally, the flood impact analysis conducted for the proposed project concluded that although the project would place fill within the 100-year floodplain, the amount of fill would not displace enough storage volume to have an impact on San Francisco Bay tides or Pulgas Creek.[25] Therefore, the proposed project would not create any additional flood risk to neighboring or downstream properties and there would be a *less-than-significant* impact from the proposed project in terms of impeding or redirecting flood flows.

Significance without Mitigation: Less than significant.

HYD-4 The proposed project would not risk the release of pollutants due to project inundation from flood hazards, tsunamis, or seiches.

The project site is not located in a dam inundation zone as indicated in the City of San Carlos' 2030 General Plan.[26] There are no water storage tanks or reservoirs near the project site that would result in a seiche. Although the project site is near San Francisco Bay, a seiche is extremely unlikely to occur because of the differences in resonance frequencies for seiches and San Francisco Bay. The nearest tsunami inundation area is about 0.3 mile to the east, beyond U.S. Highway 101, on the eastern portion of San Carlos Airport.[27] Therefore, the site is not at risk of flooding due to dam failure, tsunamis, or seiches.

However, the project site is within the FEMA flood zone AE, which is subject to inundation by the 100-year flood with a BFE of approximately 10 feet.[28] Therefore, the proposed project could potentially release pollutants due to flood hazards.

Project construction would adhere to SCMC Chapter 15.56. As part of the site design, the finished floor elevation of the buildings would been set at 13 feet, which is three feet above the base flood elevation. Section 15.56.080, *Development permit requirements,* of the SCMC requires a development permit to be obtained before construction begins in a 100-year floodplain. City building or grading permits serve as the vehicles for permitting development in the floodplain. SCMC Section 15.56.120, *Construction standards generally,* sets forth construction requirements for development that would minimize flood hazard risks, including anchoring, elevation, and flood-proofing, and standards for utilities, subdivisions, residential and non-residential construction. These measures would minimize the potential for flooding and thus the risk of pollutant release.

Therefore, impacts related to the release of pollutants due to flooding would be *less than significant* for the proposed project.

Significance without Mitigation: Less than significant.

[25] Schaaf & Wheeler Consulting Civil Engineers, 2022. *Hotel Indigo Floodplain Impacts Review Memorandum*, dated July 27, 2022

[26] City of San Carlos, 2009, *San Carlos 2030 General Plan,* Figure 8-6*, Dam Inundation Areas*, page 195.

[27] California Department of Conservation, 2019, *San Mateo County Tsunami Hazard Areas* https https://www.conservation.ca.gov/cgs/tsunami/maps/san-mateo, accessed August 23, 2022.

[28] Federal Emergency Management Agency, 2021, *FEMA Flood Map Service Center: Search by Address*, https://msc.fema.gov/portal/home, accessed August 22, 2022.

HYD-5 The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

The groundwater basin beneath the project site (Santa Clara Valley Groundwater Basin, San Mateo Plain) is not subject to the Sustainable Groundwater Management Act (SGMA) because it is classified as a very low priority basin and the development of a sustainable groundwater management plan is not required. Therefore, development on the site would have no impact related to obstructing the implementation of a sustainable groundwater management plan.

The San Francisco Bay RWQCB monitors surface water quality and groundwater through implementation of the Water Quality Control Plan for the San Francisco Bay Basin, also referred to as the "Basin Plan" and designates beneficial uses for surface water bodies and groundwater. Adherence to the State CGP, implementation of the SWPPP, and adherence to the City's erosion control requirements, as described in impact discussion HYD-1, would ensure that water quality is not adversely impacted during construction. In addition, implementation of the BMP measures at the project site, including bioretention areas, self-treating landscaped areas, and flow-through planters, would ensure that water quality is not impacted during the operational phase of the proposed project. As a result, development of the proposed project would not obstruct or conflict with the implementation of the San Francisco Bay RWCQB Basin Plan.

Therefore, the proposed project would not conflict with or obstruct a water quality control plan or a sustainable groundwater management plan and the impact would be *less than significant*.

Significance without Mitigation: Less than significant.

HYD-6 The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts regarding hydrology and water quality.

For the purposes of this analysis, the geographic context used for the cumulative assessment of hydrology and water quality impacts includes the areas within the City of San Carlos that discharge stormwater to Belmont Creek, Brittan Creek, Cordilleras Creek, and Pulgas Creek, which ultimately drain into San Francisco Bay. Cumulative projects considered in this analysis include projects evaluated under the City's General Plan 2030 buildout and nine approved development projects provided in Table 4-1, *Cumulative Development Projects*. The nearest project is a commercial and life science building at 405 Industrial Road (Menlo Equities), which is across Holly Road to the northwest and is about 0.15 mile from the project site.

Hydrology and Drainage

Cumulative projects within San Carlos and the San Francisco Bay Estuaries Watershed could increase impervious areas and increase stormwater runoff rates. However, all projects would be required to prepare and implement SWMPs that include provisions for the capture and infiltration of runoff or the temporary detention of stormwater runoff in accordance with the NPDES MS4 permit. These BMPs include site design, source control, and treatment control measures that provide both flow control and

treatment to runoff before it enters the storm drain system or is discharged into a receiving water body. Any new development would also be subject, on a project-by-project basis, to the applicable level of independent environmental review as well as City or County design guidelines and other applicable policies and procedures. Thus, no significant cumulative drainage impacts would occur, and cumulative project drainage impacts would be *less than significant*.

Water Quality

Cumulative development projects have the potential to generate pollutants during project construction and operation. All construction projects that disturb one acre or more of land would be required to prepare and implement SWPPPs and obtain coverage under the Statewide CGP. All projects within the City and the watershed would also be required to prepare and implement SWMPs specifying BMPs that would be applied during project design and project operation, including stormwater treatment measures that temporarily detain and treat runoff prior to discharge to the storm drain system or receiving water body. Thus, cumulative water quality impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

4.9 LAND USE AND PLANNING

This chapter describes the regulatory framework and existing conditions in the project site related to land use and planning, and the potential impacts from implementation of the proposed project.

4.9.1 ENVIRONMENTAL SETTING

4.9.1.1 REGULATORY FRAMEWORK

Regional Regulations

The Association of Bay Area Governments (ABAG) is the regional planning agency and council of governments for the nine-county San Francisco Bay Area, which includes San Mateo County and Redwood City. The Metropolitan Transportation Commission (MTC) and ABAG's *Plan Bay Area 2050* is the Bay Area's Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS). *Plan Bay Area 2050* was prepared by MTC in partnership with ABAG, the Bay Area Air Quality Management District, and the San Francisco Bay Conservation and Development Commission and adopted on October 21, 2021.[1] The SCS sets a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce greenhouse gas emissions from transportation (excluding goods movement) beyond the per capita reduction targets identified by California Air Resources Board. An overarching goal of *Plan Bay Area 2050* is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle miles traveled and associated greenhouse gas emissions reductions. The project site is not located within a Priority Development Area (PDA). The nearest PDA is the Railroad Corridor PDA, located about 850 feet south of the project site. The project site is located within a Transit Priority Area (TPA).[2]

Local Regulations

San Carlos 2030 General Plan

The San Carlos 2030 General Plan provides the basis for the City's land use and development policies and represents the community's basic values, ideals, and aspirations. The General Plan establishes policies to guide development and conservation through 2030. The seven State-mandated General Plan elements (Land Use, Circulation, Conservation, Housing, Open Space, Noise, and Safety) were organized into seven elements under the City's General Plan as follows:

[1] Association of Bay Area Governments and the Metropolitan Transportation Commission, October 2021, *Plan Bay Area 2050*, https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf, accessed February 9, 2022.

[2] Metropolitan Transportation Commission, 2021, Priority Development Area - Transit Priority Area Overlay (2017), https://opendata.mtc.ca.gov/maps/MTC::priority-development-area-transit-priority-area-overlay-2017/explore?location=37.513278%2C-122.253965%2C17.00, accessed March 17, 2022.

- Land Use
- Housing
- Circulation and Scenic Highways
- Environmental Management
- Parks and Recreation
- Community Safety and Services
- Noise

General Plan Policies

Key policies and strategies of the General Plan relevant to this chapter's analysis of the proposed project's potential land use impacts are included in Table 4.9-1, *City of San Carlos 2030 General Plan Land Use and Planning Policies Relevant to the Proposed Project*. The set of policies listed in Table 4.9-1 is not an exhaustive list of all of the General Plan policies applicable to the proposed project; rather, it is a selection of land use policies relevant to the impact discussion in this chapter.

TABLE 4.9-1 CITY OF SAN CARLOS 2030 GENERAL PLAN LAND USE POLICIES RELEVANT TO THE PROPOSED PROJECT

Policy Number	Policy Text
Chapter 3, Land Use Element	
Policy LU-3.14	Require sidewalks, or deferred improvement agreements, for all new and substantially renovated commercial properties on the East Side.
Policy LU-5.9	Encourage new commercial development on parcels fronting Highway 101 to expand the City's tax base and to be of high quality design.
Policy LU-5.15	Promote economic revitalization on underutilized parcels designated for higher intensity land uses.
Policy LU-7.4	Respect the visual prominence of important city landmarks, gateways, and destinations.
Policy LU-8.3	Encourage design features and amenities in new development and redevelopment, including, but not limited to: a. Interconnected street layout. b. Clustering of buildings. c. Landscaping on each lot. d. Visual buffers. e. Facilitation of pedestrian activity. f. Distinctiveness and variety in architectural design.
Policy LU-11.9	Ensure that new development on the Landmark sites at the northeast and southeast corners of Holly Street and Industrial Road function as the primary gateway features for the Holly Street Gateway area. Site planning, building treatments, pedestrian improvements and landscape features shall exhibit exceptional design and respect integrity of adjacent uses including nearby residential properties.
Chapter 5, Circulation and Scenic Highways	
Policy CSH-3.4	Support Smart Growth and Sustainability principles to reduce travel time from housing to jobs, provide affordable transportation to all members of the community, allow compact mixed-use development and decrease dependency on automobiles.

Source: City of San Carlos, 2009, *2030 General Plan.*

General Plan Land Use Designations

The San Carlos 2030 General Plan designates the project site as General Commercial/Industrial. This land use designation allows all retail, service, office, research and development, and industrial uses, and offers maximum flexibility to allow the market to determine the mixture of non-residential uses. The General Plan also identifies the project site to be within a major developed area referred to as the "East Side," as well as within a designated gateway, and a landmark area.

East Side Area

The project site is located in the East Side Area of San Carlos. The East Side Area includes 600 acres of land in the eastern portion of the city that is bounded by the city limit to the north, east, and south, and the Caltrans railroad tracks to the west. This area was originally the site of small industrial firms including manufacturing, repairing, building supply uses, service business, and housing after World War II, and transitioned to include research and development space, computer hardware and software, telecommunications, medical research, and biotechnology firms, in the 1990s.[3]

Designated Gateways

The project site is located at the Holly Street East of El Camino Real Primary Gateway, which is the primary entrance point from U.S. Highway 101 into San Carlos. Gateways are locations that announce to a visitor or resident that they are entering the city or a unique neighborhood within the city, and include primary gateways and secondary gateways. Primary gateways are the major regional entry points into the city on roadways or transportation routes, whereas secondary gateways are more local entry points into the city from nearby cities including Belmont and Redwood City.[4] Gateways often, though not always, feature Landmark structures. Holly Street, adjacent to the project site, is also a City-designated scenic road, where improvements have included entryway decorative features, grade separation, and landscaping.

Landmark Sites

Sites designated as General Commercial/Industrial that are adjacent to Holly Street and Industrial Road, which includes the project site, are considered Landmark Sites, which have high visibility, and uses drawing from a regional market-base are encouraged.[5] Landmark sites are targeted for economic development for regional destination-oriented uses, including hotels that serve regional users and have significant beneficial results in employment growth, thus contributing to the economic sustainability of San Carlos.

[3] City of San Carlos, 2009, *San Carlos 2030 General Plan, Land Use Element*, page 57.
[4] City of San Carlos, 2009, *San Carlos 2030 General Plan, Land Use Element*, page 60.
[5] City of San Carlos, 2009, *San Carlos 2030 General Plan,* Appendix B, *Glossary and Acronyms*, page B-8.

San Carlos Municipal Code

Zoning Ordinance

Chapter 18, *Zoning*, of the San Carlos Municipal Code (SCMC) houses the Zoning Ordinance. Section 18.01.020, *Purpose*, states that the purpose of the Zoning Ordinance is to provide a precise guide for the physical development of the City to achieve the arrangement of land uses depicted in the San Carlos General Plan, consistent with the goals and policies of the General Plan. The Zoning Ordinance also aims to foster a harmonious, convenient, and workable relationship among land uses and ensure compatible infill development, consistent with the General Plan.

The project site is zoned Landmark Commercial (LC).[6] According to SCMC Section 18.06.010, *Purpose*, the LC district is intended to accommodate key parcels known collectively as landmark sites, which are targeted for economic development of regional retail and destination-oriented uses, including hotels, that are intended to serve regional users and contribute to the City's economic sustainability and employment growth. The LC zoning designation has a maximum building height of 50 feet and a maximum floor area ratio[7] (FAR) of 2.0 and requires a 10-foot setback on front and street side lot lines.[8] Hotels and motels are considered use classifications that are permitted in Landmark Commercial districts after review and approval of a minor use permit by the Zoning Administrator.[9]

Other Regulations

Land use plans, policies, or regulation adopted for the purpose of avoiding or mitigating an environmental effect are described in the regulatory setting of other environmental topic chapters of this Draft Environmental Impact Report (EIR). Specifically, these discussions are in Chapter 4.2, *Biological Resources*; Chapter 4.4, *Energy*; Chapter 4.5, *Geology and Soils*, Chapter 4.6, *Greenhouse Gas Emissions*; Chapter 4.8, *Hydrology and Water Quality*; Chapter 4.10, *Noise*; Chapter 4.11, *Transportation*; and Chapter 4.12, *Utilities and Service Systems*. Some of these key municipal codes include:

- Chapter 13.14, *Stormwater Management and Discharge Control*. The discharge of non-stormwater discharges to the City storm drain system is prohibited. All projects that will or may result in pollutants entering the City storm drain system must comply with Section 13.14.110, *Reduction of pollutants in stormwater*, to reduce such pollutants, including standards for parking lots and similar structures, and BMPs for new development and redevelopment projects. In addition, this chapter provides for watercourse protection (Section 13.14.120, *Watercourse protection*) to ensure that all watercourses are kept and maintained reasonably free from pollutants and flow restrictions and for the maintenance of healthy bank vegetation.

[6] City of San Carlos, 2021, City of San Carlos Interactive Zoning Map, https://zoning.cityofsancarlos.org/map, accessed February 10, 2022.

[7] The floor area ratio (FAR) is the ratio of the gross floor area of all buildings on a lot to the area of the lot.

[8] City of San Carlos Municipal Code, Title 18, *Zoning*, Chapter 18.06, *Commercial Districts*, Table 18.06.030, *Development Standards – Commercial District*.

[9] San Carlos Municipal Code, Title 18, *Zoning*, Chapter 18.06, *Commercial Districts*, Section 18.06.010, *Purpose*; and Section 18.06.020, *Land use regulations*.

- Section 18.18.070, *Trees*. This section contains the City's tree protection regulations. Within RS Districts, one tree shall be provided for every 1,000 square feet of lot coverage. The SCMC defines "protected tree" as any significant or heritage tree. Protected trees may not be removed, pruned, or otherwise materially altered without a permit.
- Chapter 18.18.080, *Water Efficient Landscaping*. This chapter establishes water-efficient landscape and irrigation guidelines to promote the conservation and efficient use of water and minimize runoff with the use of automatic control systems.
- Chapter 18.25.010, *Transportation Demand Management*. This section sets forth requirements to reduce the amount of traffic generated by new development; promotes more efficient utilization of existing transportation facilities and ensure that new developments are designed in ways to maximize the potential for alternative transportation usage; and establishes an ongoing monitoring and enforcement program to ensure that the City's desired alternative mode use percentages are achieved. The chapter is applicable to new multi-unit developments of ten or more units, among other land uses.
- Section 18.29.060, *Design Review Criteria*. This section sets forth the criteria for the City's design review process and requires the project to create parking areas that limit stormwater run-off and the heat-island effect.

For a complete list and description of the applicable 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 above.

4.9.1.2 EXISTING CONDITIONS

Existing Uses on the Project Site

As discussed in Chapter 3, *Project Description*, the 2.09-acre project site is currently vacant with no landscaping on the site. The project site used to be developed with three commercial buildings and structures with 51,633 square feet of driveway, walkway, and parking areas, and 6,553 square feet of gravel. The structures were one-story in height. The project site was formerly occupied by the Bayshore Supply business, an electrical, plumbing, lighting, and HVAC (heating, ventilation, and air conditioning) materials retailer, and is currently vacant.

Surrounding Land Uses and Context

The project site is located at 501 Industrial Road, in eastern San Carlos. As shown in Figure 3-2, *Aerial View of Project Site*, in Chapter 3, *Project Description*, of this Draft EIR, the project site is bounded by the U.S. Highway 101 southbound onramp to the north, commercial buildings and a hotel to the east and south, Industrial Road to the southwest, and Holly Street to the northwest. The project site is surrounded by commercial uses to the north, commercial uses and the San Carlos Airport to the east across U.S. Highway 101, and commercial and residential uses to the south and west.

The nearest residential neighborhood is to the west of the project site, separate by Industrial Road, which is 75 feet (four-lanes) wide. The closest neighborhood park is Laureola Park about 0.16 miles to the

southwest. Edison Montessori School is located about 0.79 miles to the northeast; Central Middle School, Arroyo Elementary School, Sequoia Parents Nursery School, and Arbor Bay School are located about 0.82 miles to the south; Arundel Elementary School is located about 1.12 miles to the southwest; and Nesbit Middle School and Elementary School are located about 1.28 miles to the northwest.

The closest SamTrans bus stop (Lines 260, 295, and ECR) is located at the El Camino Real and San Carlos Avenue intersection, about 0.4 miles west of the project site.[10] The nearest Caltrain station to the project site is the San Carlos station, which is also located about 0.4 miles west of the site. In addition to the San Carlos Airport, about 0.25 miles east of the project site across U.S. Highway 101, the Palo Alto Airport is located about 9 miles to the southeast, and the Moffett Federal Airfield is located approximately 13 miles to the southeast. San Francisco International Airport is located about 16 miles northwest of the project site.

4.9.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant impact on land use and planning 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 significant cumulative impacts with respect to land use and planning.

4.9.3 IMPACT DISCUSSION

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

Projects with the potential to divide an established community typically involve the creation of new physical barriers, such as new major highways or roadways, storm channels, or utility transmission lines, or the closure of bridges or roadways. The physical division of an established community would impair mobility within an existing community or between a community and adjacent areas.

The proposed project would develop the site with a hotel. The proposed project would include sidewalk and landscaping improvements along the public right of way but would retain the existing roadway pattern surrounding the project site and would not introduce any new major roadways or other physical features through existing residential neighborhoods or other communities that would create new barriers. Based on the scope and size of the proposed project and current land use, and the setting in which the project site is located, the proposed project would not physically divide the established community, and this impact would be *less than significant*.

[10] San Mateo County Transit District, August 2021, SamTrans Interactive System Map, https://www.samtrans.com/schedulesandmaps/maps.html, accessed March 19, 2022.

Significance without Mitigation: Less than significant.

LU-2	**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.**

San Carlos 2030 General Plan

The proposed project would comply with the General Plan policies for land use and planning described in Section 4.9.1.1, *Regulatory Framework*. Consistent with San Carlos 2030 General Plan Circulation and Scenic Highways Element Policy CSH-3.4, the proposed project would support sustainability principals, and would include a number of features to decrease dependency on automobiles. See Chapter 4.11, *Transportation*, of this Draft EIR for a full discussion of the project's proposed transportation demand management (TDM) measures. Consistent with General Plan Policy LU-5.15, the proposed project would revitalize an underutilized parcel with a higher-intensity land use. The proposed project would adhere to Policy LU-11.9 by including high-quality design and architecture that is sensitive to the character of adjacent structures and uses. The proposed project would provide outdoor areas, landscaping, and visual buffers, in compliance with Policy LU-8.3. The proposed project also includes a central courtyard that would provide outdoor space for informal gatherings, outdoor dining, and casual recreation; landscaping throughout the project site to create an aesthetically pleasing and functional space for guests; and a simple planting palette will be used along the site perimeter to allow the focus to be on the architecture while shielding unwanted views and buffering the surrounding parking lot from the adjacent public and private land uses. Policy LU-3.14 requires sidewalks, or deferred improvement agreements for all new commercial properties on the East Side. The proposed project would include sidewalk and landscaping improvements along the public right of way.

Municipal Code

The project site is currently zoned as Landmark Commercial (LC). As described in Section 4.9.1.1, *Regulatory Framework,* the LC zoning designation has a maximum building height of 50 feet. The proposed project would be six stories and the highest points of the building would reach roughly 82 feet, exceeding the maximum building height. However, the project applicant is requesting a Planned Development zoning designation and a Planned Development Permit to allow certain site-specific zoning standards, including allowance for height to accommodate the six-story building. The LC zoning designation also has a maximum floor area ratio (FAR) of 2.0 and requires a 10-foot setback, both of which the proposed project would be in compliance with, as it involves a FAR of 1.3 and setbacks over 20 feet. However, these zoning standards are not adopted for the purpose of avoiding or mitigating environmental effects and, upon obtaining a Planned Development Permit from the City, the proposed project would not conflict with zoning requirements.

The proposed project's potential to conflict with other applicable plans and regulations adopted for the purpose of avoiding or mitigating an environmental effect is discussed in detail in the other environmental topic chapters of this Draft EIR. Specifically, these discussions are in Chapter 4.2, *Biological Resources*;

Chapter 4.4, *Energy*; Chapter 4.5, *Geology and Soils*, Chapter 4.6, *Greenhouse Gas Emissions*; Chapter 4.8, *Hydrology and Water Quality*; Chapter 4.10, *Noise*; Chapter 4.11, *Transportation*; and Chapter 4.12, *Utilities and Service Systems*. As discussed in these chapters, implementation of the proposed project would not be inconsistent with or obstruct the implementation of any applicable land use plan or regulation adopted for the purposes of avoiding or mitigating an environmental effect.

The proposed project would comply with the General Plan and SCMC policies adopted for the purpose of mitigating an environmental effect. Impacts in this regard would be *less than significant*.

Significance without Mitigation: Less than significant.

LU-3 The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in a significant cumulative land use and planning impact.

This section analyzes potential impacts related to land use and planning that could occur from a combination of the proposed project and other past, present, and reasonably foreseeable projects within the vicinity. The proposed project would place a hotel in a developed, urbanized area. The hotel would be designed in compliance with the City's plans, policies, and regulations adopted for the purpose of avoiding or mitigating environmental effects. Current projects in the area are included in Table 4-1, *Cumulative Development Projects*, in Chapter 4, *Environmental Analysis*, of this Draft EIR. The nearest potential project is 0.15 miles northwest of the project site at 405 Industrial Road. This project would include 188,828 new net square feet for life science use. The proposed project and 405 Industrial Road project are located amongst commercial uses, with a residential neighborhood to the southwest. The combination of the proposed project and the 405 Industrial Road project would not physically divide the surrounding established community. Additional properties surrounding the project site are currently developed, and primarily commercial. As described under impact discussion LU-1, the proposed project would not divide an existing community and, in combination with other projects which would be scattered throughout San Carlos, would not divide an existing community. In addition, other projects would be subject to land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect, as discussed in LU-2. Thus, the proposed project would not, in combination with other projects, result in significant cumulative land use and planning impacts and the impact would be *less than significant*.

Significance without Mitigation: Less than significant.

4.10 NOISE

This chapter describes the regulatory framework and existing conditions related to noise sources and the overall noise environment in the vicinity of the proposed project, evaluates the potential impacts that could occur from development of the proposed project, and details mitigation measures needed to reduce significant impacts. The technical data and modeling used for this analysis are in Appendix G, *Noise Data*, of this Draft Environmental Impact Report (EIR).

4.10.1 ENVIRONMENTAL SETTING

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 a receiving mechanism, such as the human ear or a microphone.
- Noise. Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- Decibel (dB). A unit-less 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.
- Ambient Noise Level. The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
- Equivalent Continuous Noise Level (L_{eq}). The mean of the noise level (or energy) averaged over the 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 L50 level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the "median sound level." The L10 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 L90 is the sound level exceeded 90 percent of the time and is often considered the "effective background level" or "residual noise level."
- Maximum Sound Level (L_{max}). The highest RMS sound level measured during the measurement period.
- Root Mean Square Sound Level (RMS). The square root of the average of the square of the sound pressure over the measurement period.
- Day-Night Sound Level (Ldn 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 that for general community/environmental noise, CNEL and Ldn values rarely differ by more than 1 dB. As a matter of practice then, Ldn and CNEL values are considered to be equivalent/interchangeable and are treated as such in this assessment.

- Peak Particle Velocity (PPV). The peak rate of speed at which soil particles move (e.g., inches per second) due to ground vibration.
- Sensitive Receptor. Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

4.10.1.1 REGULATORY FRAMEWORK

This section describes the regulatory framework related to noise and vibration in the vicinity of the project site.

State Regulations

The California Building Code (CBC), Title 24, Part 2, Volume 1, Chapter 12, Section 1206.4, *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 day-night average sound level (Ldn) or the community noise equivalent level (CNEL), consistent with the local general plan noise element.

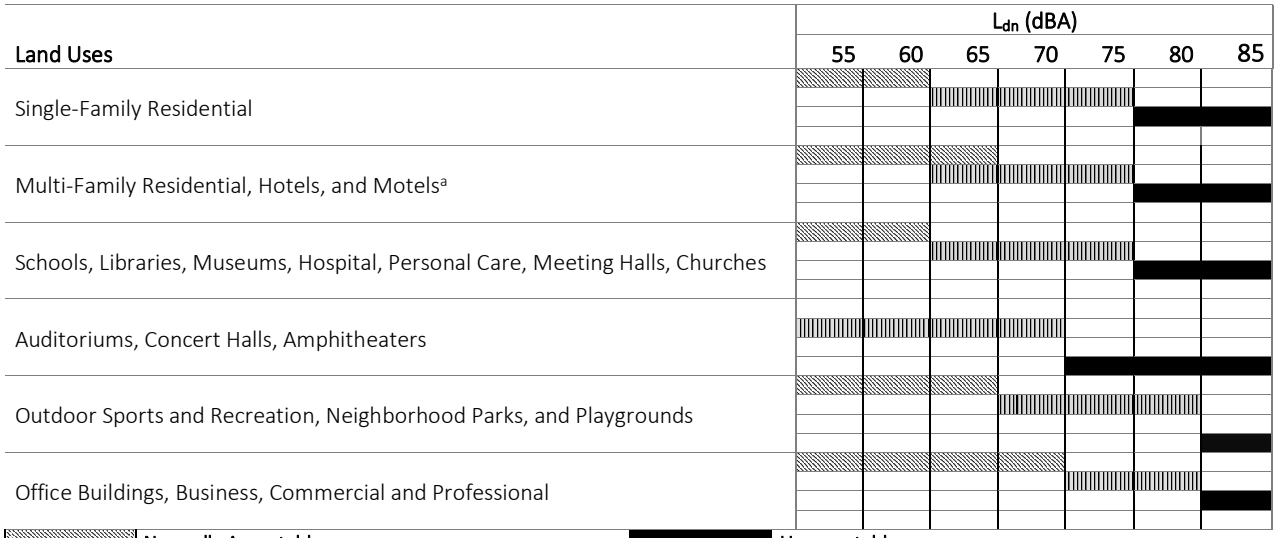
Proposed noise-sensitive development in areas with high ambient noise levels are required to prepare an acoustical analysis that demonstrates compliance with the interior 45 dBA noise standard through use of noise attenuation measures, including insulation, window design, and use of heating and ventilating systems in lieu of opening windows.

Local Regulations

San Carlos 2030 General Plan

The City of San Carlos 2030 General Plan Noise Element provides objectives, policies, and actions aimed to protect residents from excessive noise and establishes uniformity between City policy and programs undertaken to control and abate environmental noise. The Noise Element also adopted noise and land use compatibility standards, summarized in Table 4.10-1, *San Carlos Land Use Compatibility for Community Noise Environments*. In addition to land use compatibility guidelines, non-transportation noise standards can be found in the Noise Element (also codified in the San Carlos Municipal Code [SCMC]) and are summarized in Table 4.10-3, *Non-Transportation Noise Standards*.

TABLE 4.10-1 SAN CARLOS LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS



Normally Acceptable:
Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable:
Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

Unacceptable:
New construction or development generally should not be undertaken because mitigation is usually not feasible to comply with noise element policies.

Note: [a] See Policy NOI-1.5 of the 2030 General Plan Noise Element.
Source: City of San Carlos, 2009, *2030 General Plan, Noise Element.*

Table 4.10-2, *City of San Carlos 2030 General Plan Policies Relevant to Noise,* lists the noise goals and policies of the 2030 General Plan Noise Element applicable to the proposed project.

TABLE 4.10-2 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO NOISE

Policy Number	Policy Text
Chapter 9, Noise (NOI) Element	
NOI-1.1	Use the Noise and Land Compatibility Standards shown in Figure 9-1 of the Noise Element, the noise level performance standards in Table 9-1 of the Noise Element and the projected future noise contours for the General Plan shown in Figure 9-3 of the Noise Element and detailed in Table 9-2 of the Noise Element, as a guide for future planning and development decisions.
NOI-1.2	Minimize noise impacts on noise-sensitive land uses. Noise-sensitive land uses include residential uses, retirement homes, hotel/motels, schools, libraries, community centers, places of public assembly, daycare facilities, churches and hospitals.
NOI-1.3	Limit noise impacts on noise-sensitive uses to noise level standards as indicated in Table 9-1 of the Noise Element.
NOI-1.4	Require a detailed acoustic report in all cases where noise-sensitive land uses are proposed in areas exposed to exterior noise levels of 60 CNEL/L_{dn} or greater. If recommended in the report, mitigation measures shall be required as conditions of project approval.
NOI-1.5	New development of noise-sensitive land uses proposed in noise-impacted areas shall incorporate effective mitigation measures into project design to reduce exterior and interior noise levels to the following acceptable levels: a. For new single-family residential development, maintain a standard of 60 L_{dn} (day/night average noise level) for exterior noise in private use areas.

TABLE 4.10-2 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO NOISE

Policy Number	Policy Text
	b. For new multi-family residential development maintain a standard of 65 L_{dn} in community outdoor recreation areas. Noise standards are not applied to private decks and balconies and shall be considered on a case-by-case basis in the downtown core. c. Interior noise levels shall not exceed 45 L_{dn} in all new residential units (single- and multi-family). Development sites exposed to noise levels exceeding 60 L_{dn} shall be analyzed following protocols in Appendix Chapter 12, Section 1208, A, Sound Transmission Control, 2001 Building Code Chapter 12, Appendix Section 1207.11.2 of the 2007 California Building Code (or the latest revision). d. Where new residential units (single- and multi-family) would be exposed to intermittent noise levels generated during train operations, maximum railroad noise levels inside homes shall not exceed 50 dBA in bedrooms or 55 dBA in other occupied spaces. These single event limits are only applicable where there are normally four or more train operations per day.
NOI-1.6	Where noise mitigation measures are required to achieve the noise level standards, the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered after practical design-related noise mitigation measures have been integrated into the project.
NOI-1.8	During all phases of construction activity, reasonable noise reduction measures shall be utilized to minimize the exposure of neighboring properties to excessive noise levels. a. Construction activities shall comply with the City's noise ordinance.
NOI-1.9	Minimize potential transportation-related noise through the use of setbacks, street circulation design, coordination of routing and other traffic control measures, and the construction of noise barriers and consider use of "quiet" pavement surfaces when resurfacing roadways.
NOI-1.11	Ensure that proposed noise sensitive land uses include appropriate mitigation to reduce noise impacts from aircraft operations at San Carlos Airport. Work with the San Carlos Airport Pilots Association and San Mateo County to continue to refine and implement the Airport's noise abatement procedures.
NOI-1.12	Ensure consistency with noise limitations contained in the San Carlos Airport Land Use Plan.

Note: Figures and Tables referenced in this table are in regard to the ones listed in the General Plan, not this Draft EIR.
Source: City of San Carlos *2030 General Plan.*

Table 4.10-3, *Non-Transportation Noise Standards,* lists exterior daytime and nighttime noise standards for various land uses, as presented in the Noise Element. For the purposes of this project, the residential noise standards are applied to the Residence Inn hotel noise sensitive receptor.

TABLE 4.10-3 NON-TRANSPORTATION NOISE STANDARDS

Land Use Receiving the Noise	Hourly Noise-Level Descriptor	Exterior Noise-Level Standard in Any Hour (dBA) Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Residential	L_{50}	55	45
	L_{max}	70	60
Medical, convalescent	L_{50}	55	45
	L_{max}	70	60
Theater, auditorium	L_{50}	--	--
	L_{max}	--	--
Church, meeting hall	L_{50}	55	--
	L_{max}	--	--
School, library, museum	L_{50}	55	--
	L_{max}	--	--

Notes:
The residential standards apply to all residentially zoned properties. Each of the noise levels specified above shall be lowered by 5 dBA for tonal noises characterized by a whine, screech, or hum, noises consisting primarily of speech or music, or recurring impulsive noises. In situations where the existing noise level exceeds the noise levels indicated in the above table, any new noise source must include mitigation that reduces the noise level of the noise source to the existing level. The exterior noise standards are measured at any point on the receiving property where there is, or could be in the future, frequent human use and quiet would be beneficial. These standards do not apply to temporary sources such as construction activities.
Source: City of San Carlos, 2009, *2030 General Plan.*

San Carlos Municipal Code Noise Standards

Section 18.21.050-A, *Noise Limits*, of the SCMC includes noise limits for non-transportation sources, which are consistent with the requirements included in the General Plan Noise Element (see Table 4.10-3). The maximum allowable noise levels in Table 4.10-3 shall be adjusted according to the following provisions, with no more than one increase in the maximum permissible noise level applied to the noise generated on each property:

a. Ambient Noise. If the ambient noise level at a noise-sensitive use is 10 dBA or more below the standard, the allowable noise standard shall be decreased by 5 dBA.

b. Duration. The maximum allowable noise level (L_{50}) shall be increased as follows to account for the effects of duration:

   i. Noise that is produced for no more than a cumulative period of fifteen minutes in any hour (L_{25}) may exceed the noise limit by 5 dBA; and

   ii. Noise that is produced for no more than a cumulative period of five minutes in any hour (L_8) may exceed the noise limits by 10 dBA;

   iii. Noise that is produced for no more than a cumulative period of one minute in any hour (L_2) may exceed the noise limits by 15 dBA.

c. Character of Sound. If a noise contains a steady audible tone or is a repetitive noise (such as hammering or riveting) or contains music or speech conveying informational content, the maximum allowable noise levels shall be reduced by 5 dBA.

d. Prohibited Noise. Noise for a cumulative period of thirty minutes or more in any hour (L_{50}) which exceeds the noise standard for the receiving land use is prohibited.

Section 18.21.050-B, *Noise Exposure*, of the SCMC discusses noise and land use requirements and limitations of various land uses. However, these standards are not applicable to the project analysis due to the California Supreme Court decision regarding the assessment of the environment's impacts on projects (*California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD)*, 62 Cal. 4th 369 (No. S 213478) issued December 17, 2015).

Section 9.30.050, *Enforcement*, of the SCMC addresses the enforcement mechanisms and states that the enforcement of the City's standards falls under the jurisdiction of the San Carlos Police Department. The Department investigates alleged violations of the noise standards on a complaint basis. Section 9.30.060, *Violation – Penalty*, provides penalties for violations of the City's noise standards.

Construction and Home Maintenance Noise

According to Section 9.30.070-B, *Construction Activities*, of the SCMC, noise from construction activities is exempt provided that construction is limited to the hours between 8:00 a.m. and 6:00 p.m., Monday through Friday, and between 9:00 a.m. and 5:00 p.m. on Saturdays. Construction noise-related activities are prohibited on Sundays and holidays, and all gasoline-powered construction equipment must be equipped with an operating muffler or baffling system as originally provided by the manufacturer. The Building Official has the authority to grant exceptions to construction noise-related activities.

Per Section 9.30.070-C, *Home workshop and gas-powered gardening equipment*, home workshop and gas-powered gardening equipment is also exempt when conducted between the hours of 8:00 a.m. to sunset, Monday through Friday, and 10:00 a.m. to sunset on weekends.

Vibration Standards

The SCMC does not have quantified limits for potential architectural damage from construction vibration. However, Section 18.21.060, *Vibration*, of the SCMC does address groundborne vibration perception (to humans) and states, "no vibration shall be produced that is transmitted through the ground and is discernible without the aid of instruments by a reasonable person at the lot lines of the site. Vibrations from temporary construction, demolition, and vehicles that enter and leave the subject parcel (e.g., construction equipment, trains, trucks, etc.) are exempt from this standard."

4.10.1.2 EXISTING CONDITIONS

Existing Noise Sources

The dominant noise source in the project area is traffic from U.S. Highway 101 and local roadways. The General Plan 2030 Traffic Noise and Railroad Noise Contours show the project site mostly within 70 to 75 dBA CNEL/Ldn noise contour and partially within the 75 or greater dBA CNEL/Ldn traffic noise contour. The General Plan San Carlos Airport Noise Contour Map shows the project site just outside the 55 dBA CNEL airport noise contour.

Sensitive Receptors

Certain land uses, such as residences, schools, and hospitals, are particularly sensitive to noise and vibration. Sensitive receptors for the purposes of noise analysis include residences, senior housing, schools, places of worship, and recreational areas. These uses are regarded as sensitive to noise because they are where citizens most frequently engage in activities which are likely to be disturbed by noise, such as reading, studying, sleeping, resting, working from home, or otherwise engaging in quiet or passive recreation. Commercial and industrial uses are not particularly sensitive to noise or vibration. The nearest residential receptors are single-family homes to the southwest across Industrial Road. There are approximately 3 single-family homes directly across the project site which are 91 Bayport Court, 87 Bayport Court, and 96 Bayport Court. These residences have an existing sound wall along Industrial Road that blocks the line-of-sight to the first story. The existing wall does not block the line-of-sight to second story floors. Other single-family homes are located further south along Industrial Road and further west on Bayport Court. The nearest non-residential sensitive receptor is the Residence Inn hotel located directly southeast of the project site. The Residence Inn hotel was required to conduct an acoustical study to ensure that interior noise levels would meet the City's 45 dBA CNEL interior noise standard for habitable rooms based on existing exterior noise levels ranging from 70-80 dBA CNEL. Additionally, based on available Google Maps imagery, there is an existing wall approximately 8 to 10-foot tall along the southeast boundary between the project site and the existing hotel.

4.10.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant noise impact if it would:

1. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards.
2. Generate 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 significant cumulative impacts with respect to noise.

The project site would be within the 70 to 75 and 75 or greater dBA CNEL/Ldn noise contour which is considered "Conditionally Acceptable" and "Unacceptable" for hotel land uses (see Table 4.10-1). However, as a result of the California Supreme Court decision regarding the assessment of the environment's impacts on projects (*California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD)*, 62 Cal. 4th 369 (No. S 213478) issued December 17, 2015), it is generally no longer the purview of the California Environmental Quality Act (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 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 City of San Carlos does not have a quantified threshold for temporary construction noise and vibration. Therefore, to determine impact significance, the following Federal Transit Administration (FTA) criteria are used in this analysis. A vibration or construction noise impact would occur if:

- Vibration levels would exceed 0.20 inches/second (in/sec) peak particle velocity (PPV) at the façade of a non-engineered structure (e.g., wood-frame residential) will be used to assess vibration damage to residences at the nearby sensitive receptors.
- Project construction activities would generate noise levels greater than 80 dBA L_{eq} at the sensitive receptor property line.

4.10.3 IMPACT DISCUSSION

NOI-1	**The proposed project would generate a temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.**

Construction Noise

Two types of short-term noise impacts could occur during construction: (1) mobile-source noise from transport of workers, material deliveries, and debris and soil haul and (2) stationary-source noise from use of construction equipment. Existing uses surrounding the project site would be exposed to construction noise. Construction is anticipated to be completed in one development phase over an approximately 18-month period, estimated to begin in October 2023.

As stated in Section 4.10.1.1, *Regulatory Setting*, construction activities are exempt from the SCMC noise standards provided that they are limited to the hours between 8:00 a.m. and 6:00 p.m., Monday through Friday, and between 9:00 a.m. and 5:00 p.m. on Saturdays. However, the City does not provide a quantitative threshold for construction noise within the allowable hours. Therefore, this analysis uses the FTA Transit Noise and Vibration Impact Assessment Manual construction noise impact criterion of 80 dBA Leq.[1]

Construction Vehicles

Construction vehicles such as haul trucks, vendor, and worker vehicles would access the project site via U.S. Highway 101 and Industrial Road. The transport of workers and materials to and from the construction site would incrementally increase the CNEL along access roadways. However, this increase would be minimal, as the proposed project would generate up to 12 daily haul trips during asphalt demolition hauling and up to 203 worker and vendor trips during overlapping building construction,

[1] Federal Transit Administration, 2018, *Transit Noise and Vibration Impact Assessment.*

architectural coating, and paving phases.[2] The existing traffic volume on Industrial Road is 5,775 to 15,488 daily trips.[3] The addition of 203 trips when compared to existing traffic volumes in the vicinity of the proposed project would result in a noise increase of less than 0.5 dBA CNEL, which would not exceed the most stringent transportation noise thresholds of 1.5 dBA CNEL. Most people can detect changes in sound levels of approximately 3 dBA under normal, quiet conditions; changes of 1 to 3 dBA are detectable under quiet, controlled conditions; and changes of less than 1 dBA are usually indiscernible. Therefore, the increase of 0.5 dBA CNEL would not be noticeable.

Construction Equipment

Noise generated during construction is based on the number and type of equipment used, the load and power requirements to accomplish tasks at each construction phase, and the timing and duration of the noise-generating activities. The extent to which construction noise affects receptors varies based on factors such as noise attenuation due to distance, the ambient noise environment, and the location of the construction activity in relation to the receptor (such as intervening barriers and topography). Each phase of construction involves the use of different kinds of construction equipment and therefore has its own distinct noise characteristics. Noise levels from construction activities are dominated by the loudest piece of construction equipment. The dominant noise source is typically the engine, although intermittent events (such as dropping of materials) can also be noticeable. Heavy equipment, such as a dozer or a loader, can have maximum, short-duration noise levels of 85 dBA or greater at 50 feet. Since noise from construction equipment is intermittent and diminishes at a rate of 6 dBA per doubling distance, the average noise levels at noise-sensitive receptors would be lower, because mobile construction equipment would move around the site with different loads and power requirements.

Project-related construction noise levels were modeled with the Federal Highway Administration Roadway Construction Noise Model (RCNM) using information provided by the project applicant and methodologies and inputs employed in the air quality assessment (see Chapter 4.1, *Air Quality*, of this Draft EIR). Average noise levels from project-related construction activities are calculated by modeling the three loudest pieces of equipment per activity phase. Equipment for grading and site preparation is modeled at spatially averaged distances (i.e., from the acoustical center of the general construction site to the property line of the nearest receptors) because the area around the center of construction activities best represents the potential average construction-related noise levels at the various sensitive receptors for mobile equipment. Similarly, construction noise from paving, asphalt demolition, and building demolitions is modeled from the center of nearest paving and demolition areas.[4] Construction equipment for building construction and architectural coating is modeled from the edge of the proposed building to the nearest sensitive receptors (which would occur within 50 feet of the Residences Inn hotel property line). For overlapping phases, the simultaneous use of the top six loudest pieces of construction equipment was modeled. Table 4.10-4, *Project-Related Average Construction Noise Levels*, summarizes the

[2] Haul truck, worker, and vendor trips were estimated using information provided by the project applicant and CalEEMod outputs.

[3] Existing traffic volumes provided by W-Trans; see Table 4.10-5, *Project-Related Increase in Traffic Noise, dBA Ldn*.

[4] Modeling conducted for this Draft EIR includes building demolition. However, building demolition is not part of the project evaluated in this Draft EIR. Therefore, modeling results represent a conservative (i.e., worst case) scenario.

estimated construction noise levels for each activity phase at a reference distance of 50 feet and attenuated construction noise levels per activity phase at the nearest sensitive receptors' property line.

Construction noise is intermittent and, as noted above, diminishes at a rate of at least 6 dBA per doubling distance when not accounting for other absorption factors such as shielding due to intervening buildings and structures, ground effects, or air absorption. Because the RCNM calculations do not account for shielding due to intervening buildings and structures, ground effects, or air absorption, the results of these calculations are conservative (that is, they represent a reasonable worst-case scenario).

TABLE 4.10-4 PROJECT-RELATED AVERAGE CONSTRUCTION NOISE LEVELS

Construction Activity Phase	RCNM Reference Noise Level	Noise Level at Resident Inn (Hotel) Property Line to East	Noise Levels at nearest Residential Property Line to Southwest
Distance in feet	*50*	*140*	*245*
Site Preparation, dBA Leq	85	76	71
Grading, dBA Leq	85	76	71
Distance in feet	*50*	*100*	*185*
Building Construction, dBA Leq	83	77	71
Distance in feet	*50*	*50*	*130*
Architectural Coating, dBA Leq	74	74	66
Distance in feet	*50*	*50*	*120*
Asphalt Demolition, dBA Leq	85	**85**	78
Paving, dBA Leq	85	**85**	78
Distance in feet	*50*	*75*	*135*
Overlapping Building Construction, Architectural Coating, and Paving, dBA Leq	87	**84**	79
Maximum Noise Level at Nearest Receptors, dBA Leq		**85**	**79**

Notes: Noise levels rounded to the nearest decibel. **Bold** = exceeds 80 dBA Leq FTA threshold. Modeling conducted for this Draft EIR includes building demolition. However, building demolition is not part of the project evaluated in this Draft EIR. Therefore, modeling results represent a conservative (i.e., worst case) scenario.
Source: RCNM (see Appendix G, *Noise Data*).

As shown in Table 4.10-4, construction noise levels would reach up to 85 dBA Leq at the adjacent Residence Inn hotel, exceeding the FTA criteria of 80 dBA Leq by up to 5 dBA. Noise levels at the nearest residential receptors would range between 66 and 78 dBA Leq during individual construction phases. During overlapping phases construction noise at the residential receptors would reach up to 79 dBA Leq. It should be noted that overlapping phases would occur over a limited 15 work-day period. However, though construction noise levels would not exceed the FTA criteria of 80 dBA Leq at the nearest residential receptors and would be limited to the daytime hours, construction activities would still elevate ambient noise levels and some residences could find it annoying. Therefore, impacts would be *significant*.

Impact NOI-1: Construction noise generated by the proposed project would exceed established threshold of 80 dBA Leq at the property line of the Residence Inn hotel during asphalt demolition, paving, and overlapping building construction, architectural coating, and paving phases.

Mitigation Measure NOI-1: The project applicant shall incorporate the following practices into the construction contract specifications to be implemented by the construction contractor during the entire construction phase of the proposed project. The project applicant and contractors shall prepare a Construction Noise Control Plan that includes the following measures:

- The construction contractor shall appoint a liaison to coordinate directly with Residence Inn hotel management and the Greater Eastside Neighborhood Association on a weekly basis throughout the entire project construction to discuss ongoing construction schedule updates and noise concerns. The appointed liaison shall provide their contact information to the hotel management at least 10 days prior to the start of construction.
- A masonry wall exists along the boundary between the project site and the Residence Inn hotel to the southeast. This wall shall be maintained and extended to 10 feet in height during building construction or, if this wall is no longer existing at the time of project construction or is removed, the construction manager shall erect a new temporary sound barrier/curtain along the project boundary between the construction zone and the Residence Inn hotel to the southeast. A second temporary noise barrier/curtain shall also be erected along the southwest project boundary to reduce noise levels at the residences across Industrial Road. The temporary sound barrier shall have a minimum height of 8 feet and be free of gaps and holes (including from the ground). The barrier(s) should be constructed of either:
  - a 0.75-inch-thick plywood wall; or
  - a hanging blanket/curtain with a surface density of at least 2 pounds per square foot; or
  - other similar sound attenuation feature that achieves equivalent reductions, should an alternative method be necessary based on-site constraints.
- Construction trucks and equipment shall utilize the best available noise control techniques including improved mufflers, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds, wherever feasible.
- Impact tools (e.g., pneumatic or electrical impact wrench, gun, torque gun) shall be hydraulically or electrically powered. Where the use of pneumatic tools is unavoidable, they shall include exhaust mufflers on the compressed air exhaust and external noise jackets on the tools.
- Signs shall be posted 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. The signs shall note that all other equipment shall be turned off if not in use for more than 5 minutes. The construction manager shall be responsible for enforcing these noise reduction requirements.
- During the entire active construction period, the use of noise-producing signals—including horns, whistles, alarms, and bells—shall be for safety warning purposes only. The construction manager shall require the use of smart back-up alarms on equipment. (These devices automatically adjust the alarm level based on the background noise level.) Alternatively, equipment back-up alarms may be turned off and replaced with human spotters in compliance with all safety requirements and laws.
- Stationary noise sources (e.g., generators and air compressors) shall be located as far from the southeast and southwest property lines as possible, and they shall be muffled and enclosed

within temporary sheds, insulation barriers, or other measures to reduce noise levels to below 80 dBA Leq.

- Material stockpiles shall be located as far as feasible from the southeast and southwest property lines to reduce noise from trucks and tractors.
- At least 10 days prior to the start of any construction activity on the project site, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours, as well as the telephone numbers of the City's and contractor's authorized representative that is assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, they shall investigate, take appropriate corrective action, and report the action to the City.

Significance with Mitigation: Less than significant. Implementation of Mitigation Measure NOI-1, specifically the construction of a temporary sound wall, would reduce construction noise levels by at least 10 dBA at the Residence Inn hotel, and at least 5 dBA at along the edge of the residential neighborhood, southwest of the project site.

Traffic Noise

As noted above, a project will normally have a significant effect on the environment related to noise if it will substantially increase the ambient noise levels for adjoining areas. 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 this, the following thresholds of significance similar to those recommended by the Federal Aviation Administration, are used to assess traffic noise impacts at sensitive receptor locations. A significant impact would occur if the proposed project would result in a traffic noise increase:

- Greater than 1.5 dBA for ambient noise environments of 65 dBA CNEL and higher.
- Greater than 3 dBA for ambient noise environments between 60 to 64 dBA CNEL.
- Greater than 5 dBA for ambient noise environments of less than 60 dBA CNEL.

Table 4.10-5, *Project-Related Increase in Traffic Noise, dBA Ldn*, shows the proposed project and cumulative traffic noise increases, based on traffic volume data along roadway study segments provided by W-Trans. As shown in Table 4.10-5, traffic noise increases due to the proposed project would be up to 0.2 dBA L_{dn} or less. In all cases, projected traffic noise increases would be below the 1.5 dBA significance threshold (lowest threshold). Therefore, traffic noise impacts would be *less than significant*.

TABLE 4.10-5 PROJECT-RELATED INCREASE IN TRAFFIC NOISE, DBA LDN

	ADT Traffic Volumes				dBA Ldn		
Roadway Segment	Existing No Project	Existing Plus Project	Future No Project	Future Plus Project	Project Noise Increase	Cumulative Increase	Project Cumulative Contribution
Industrial Road east of Holly Street	5,775	5,788	10,570	10,583	0.0	2.6	0.0
Holly Street - north of Industrial Road	12,100	12,163	13,375	13,438	0.0	0.5	0.0
Industrial Road west of Holly Street	11,640	12,240	16,450	17,050	0.2	1.7	0.2
Holly Street - south of Industrial Road	15,488	15,701	19,030	19,243	0.1	0.9	0.0

Source: W-Trans, PlaceWorks, 2022.

Stationary Noise

Mechanical Equipment

The proposed project would construct a new hotel building, anticipated to have heating, ventilation, and air conditioning (HVAC) systems located on the rooftop. For a conservative analysis, it assumed that the rooftop HVAC equipment would be located near the edges of the building (i.e., closer to sensitive receptors than if sited near the center of the building). The nearest noise sensitive receptors, as measured from the edge of the proposed hotel building to the receptor property line, would be the single-family homes to the southwest across Industrial Road and the adjacent hotel to the southeast approximately, 150 feet and 120 feet, respectively. Typical HVAC noise is 72 dBA at a distance of 3 feet. At 120 feet and 150 feet, noise levels would attenuate to approximately 40 dBA or less. This noise level would be below both the City's daytime and nighttime noise thresholds of 55 dBA L_{50} and 45 dBA L_{50}, respectively. Therefore, noise impacts would be *less than significant.*

Outdoor Courtyard

The primary noise source associated with the proposed outdoor courtyard would be conversational noise from people talking. A typical conversation between two people at a distance of 3 feet is 60 dBA.[5] The nearest sensitive receptors are the adjacent Residences Inn hotel and the single-family homes across Industrial Road, at approximately 65 feet to 210 feet, respectively, from the receptor property lines. At these distances, typical conversational noise would attenuate to approximately 33 dBA or less. This noise level would well below both the City's daytime and nighttime noise thresholds of 55 dBA L_{50} and 45 dBA L_{50}, respectively. Additionally, the dominant noise source at surrounding receptors would remain to be traffic noise from U.S. Highway 101. Therefore, the noise impacts from the outdoor courtyard would be *less than significant*.

[5] Engineering ToolBox, 2005, Required Voice Level at Distance, https://www.engineeringtoolbox.com/voice-level-d_938.html, accessed July 14, 2022.

NOI-2	The proposed project would not generate excessive groundborne vibration or groundborne noise levels.

Increases in groundborne vibration levels attributable to the proposed project would be associated with construction-related activities. Construction on the project site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effect on buildings in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

Construction Vibration

Table 4.10-6, *Construction Equipment Vibration Levels for Architectural Damage*, identifies vibration levels for typical construction equipment at a reference distance of 25 feet and at the nearest structures to the project. The nearest structure to the proposed project site is a building to the south (addressed 551 Industrial Road) and the Residence Inn hotel to the southeast, both approximately 40 feet from the project boundary. Because vibration impacts are based on instantaneous peak particle velocity (PPV), the distance is conservatively measured from the edge of the project site to the nearest receptor building façade. The City of San Carlos does not establish quantified vibration limits to assess potential architectural damage from construction activity. However, the FTA provides criteria for acceptable levels of groundborne vibration for various types of buildings and structures.[6] A threshold of 0.2 inches per second (in/sec) PPV for non-engineered timber and masonry buildings is conservatively applied to all surrounding structures.

As shown in Table 4.10-6, based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during construction would range from 0.003 to 0.21 in/sec PPV at 25 feet from the source of activity. At 40 feet, vibration levels would attenuate to 0.044 in/sec PPV or less. Therefore, project-related construction vibration would not exceed the FTA's threshold of 0.2 in/sec PPV. The second closest receptor buildings are the residences to the southwest across Industrial Road and are approximately 100 feet from the edge of the project site. At that distance vibration levels would further attenuate and would therefore also not exceed 0.2 in/sec PPV. Therefore, construction vibration impacts would be *less than significant*.

[6] Federal Transit Administration (FTA). 2018, September. *Transit Noise and Vibration Impact Assessment.*

TABLE 4.10-6 CONSTRUCTION EQUIPMENT VIBRATION LEVELS FOR ARCHITECTURAL DAMAGE

Equipment	FTA Reference PPV in in/sec at 25 feet	Approximate PPV in in/sec at Buildings to the Southeast at 40 feet
Large Bulldozer	0.089	0.044
Caisson Drilling	0.089	0.044
Loaded Trucks	0.076	0.038
Jackhammer	0.035	0.017
Vibratory Roller	0.210	0.104
Small Bulldozer	0.003	0.001

Note: PPV, peak particle velocity
Source: Federal Transit Administration, 2018, Transit Noise and Vibration Impact Assessment Manual.

Operational Vibration

The proposed project is a hotel. Hotel operations are not a source of significant operational groundborne vibration. Such sources typically include rail operations (subways/aboveground rail). Therefore, a *less-than-significant* impact would occur.

Significance without Mitigation: Less than significant.

NOI-3 The proposed project is located within two miles of a public airport but would not expose people residing or working in the project area to excessive noise levels.

According to the City's General Plan Land Use Compatibility Table for Community Noise Environment, hotel land uses are in a "Normally Acceptable" noise environment if the environment is 60 dBA Ldn/CNEL or less. The proposed project is approximately 1,000 feet southwest of the San Carlos Airport and, according to the General Plan San Carlos Airport Noise Contour Map, the project site is just outside the 55 dBA CNEL/Ldn noise contour. Therefore, noise impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

NOI-4 The proposed project, in combination with past, present and reasonably foreseeable projects, would not result in significant noise impacts.

Cumulative Traffic Noise

A significant cumulative traffic noise increase would be identified if project traffic were calculated to contribute 1 dBA or more under cumulative plus proposed project conditions to a significant traffic noise increase over existing conditions. That is, if a cumulative traffic noise increase of greater than the significance thresholds (1.5 dBA for ambient noise environments of 65 dBA Ldn and higher; 3 dBA for ambient noise environments of 60 to less than 65 Ldn; and 5 dBA for ambient noise environments of less

than 60 dBA Ldn), and the relative contribution from project traffic is calculated to contribute 1 dBA or more to this cumulative impact, it would be considered cumulatively considerable. As shown in Table 4.10-5, *Project-Related Increase in Traffic Noise, dBA Ldn*, cumulative traffic noise would exceed 1.5 dBA Ldn in an existing environment greater than 65 dBA Ldn at Industrial Road east of Holly Street and Industrial Road west of Holly Street. However, the proposed project's contribution to the cumulative increase would be up to 0.2 dBA Ldn, which is less than 1 dBA Ldn. Therefore, cumulative traffic noise impacts would be *less than significant*.

Cumulative Construction Noise

If construction of the proposed project were to overlap with cumulative projects in the vicinity, construction noise could result in a significant cumulative construction noise impact. Typically, if there are no planned and approved projects within 500 feet of the proposed project, there is no cumulative construction noise impact. Construction noise is greatly reduced at distance 500 feet or further in an urban and buildout out environment. Other noise sources to the project area remain dominant (e.g., traffic noise from U.S. Highway 101).

Based on the list of cumulative projects in Table 4-1, *Cumulative Development Projects*, of this Draft EIR, the nearest cumulative project is the project at 405 Industrial Road, approximately 200 feet north of the proposed project, 500 feet north of the Residence Inn hotel, and approximately 315 feet northeast of the nearest residential receptors to the proposed project. Table 4.10-7, *Cumulative Construction Noise Levels*, below estimates what the cumulative construction noise at the nearest noise sensitive receptors would be with a reasonable assumption that construction noise at 405 Industrial Road could reach up to 85 dBA Leq at 50 feet.

TABLE 4.10-7 CUMULATIVE CONSTRUCTION NOISE LEVELS

Nearest Receptors	Maximum Project-Related Construction Noise Levels, dBA Leq [1]	Max Construction Noise Levels at 405 Industrial Road, dBA Leq [2]	Max Cumulative Construction Noise Level dBA Leq [3]	Cumulative Construction Noise Increase dBA Leq
Residential Receptors to Southwest	78.6	71.2	79.3[4]	0.7
Residence Inn Hotel	85.3	65.3	85.3[5]	<0.1

Notes:
[1] L1
[2] L2
[3] Decibel addition formula for calculating cumulative construction noise: L1+L2 = $10*Log_{10}(10^{L1/10} + 10^{L2/10})$.
[4] $10*Log_{10}(10^{7.86} + 10^{7.12}) = 79.3$ dBA
[5] $10*Log_{10}(10^{8.53} + 10^{6.53}) = 85.3$ dBA

Based on the noise levels in Table 4.10-7, and the attenuation from distance alone from the proposed project, 405 Industrial Road, and the nearest receptors, it is calculated that overlapping construction activities would result in a less than 1 dBA increase at the nearest sensitive receptors. Therefore, cumulative noise would be *less than significant*.

Significance without Mitigation: Less than significant.

4.11 TRANSPORTATION

This chapter describes the regulatory framework and existing conditions in the project site related to transportation, and the potential impacts on transportation and traffic from development of the proposed project. This chapter is based on the following technical documents:

- *501 Industrial Road CEQA Transportation Analysis*, prepared by W-Trans, dated July 28, 2023.
- *Indigo Hotel at 501 Industrial Road Transportation Demand Management Plan*, prepared by Hexagon Transportation Consultants, Inc., dated September 26, 2022.
- *Memorandum: Left-Turn Study for the Proposed Inigo Hotel in San Carlos, California*, prepared by Hexagon Transportation Consultants, Inc., dated June 29, 2023.

These studies are included in Appendix H, *Transportation*, of this Draft Environmental Impact Report (EIR).

4.11.1 ENVIRONMENTAL SETTING

4.11.1.1 REGULATORY FRAMEWORK

This section describes federal, State, regional, and local laws and policies that are relevant to the California Environmental Quality Act (CEQA) review process for transportation and circulation.

Federal Regulations

Federal Highway Administration

The Federal Highway Administration (FHWA) is the agency of the U.S. Department of Transportation responsible for the federally funded roadway system, including the interstate highway network and portions of the primary State highway network, such as U.S. Highway 101 located adjacent to the project site.

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to assure equality of opportunity, full participation, independent living, and economic self-sufficiency for people with disabilities. To implement this goal, the U.S. Access Board, an independent federal agency created in 1973 to ensure accessibility for people with disabilities, has created accessibility guidelines for public rights-of-way. While these guidelines have not been formally adopted, they have been widely followed by jurisdictions and agencies nationwide in the last decade. These guidelines, last revised in July 2011, address various issues, including roadway design practices, slope and terrain issues, and pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, public transit, and other components of public rights of way.

State Regulations

California Complete Streets Act of 2008 (AB 1358)

Originally passed in 2008, California's Complete Streets Act took 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.

Senate Bill 743

On September 27, 2013, Senate Bill (SB) 743 was signed into law.[1] The Legislature found that with the adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the State had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and thereby contribute to the reduction of greenhouse gas emissions (GHG), as required by the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). Additionally, AB 1358, described above, requires local governments to plan for a balanced, multimodal transportation network that meets the needs of all users. To further the State's commitment to the goals of SB 375, AB 32, AB 1358, and SB 743 added Chapter 2.7, *Modernization of Transportation Analysis for Transit-Oriented Infill Projects*, to Division 13 (Section 21099) of the Public Resources Code.

Title 24

The State of California provides a minimum standard for building design through the California Building Code (CBC), which is located in Part 2 of Title 24 of the California Code of Regulations. The CBC is based on the International Building Code but has been modified for California conditions. The CBC provides fire and emergency equipment access standards in Part 9, Appendix D. These standards include specific width, grading, design, and other specifications for roads, which provide access for fire apparatuses; the CBC also indicates which areas are subject to requirements for such access. The CBC also incorporates by reference the standards of the International Fire Code. The California Fire Code (CFC) contains provisions related to emergency vehicle access, including requirements for roadway design, fire hydrants, and other relevant design features.

[1] An act to amend Sections 65088.1 and 65088.4 of the Government Code, and to amend Sections 21181, 21183, 21186, 21187, 21189.1, and 21189.3 of, to add Section 21155.4 to, to add Chapter 2.7 (commencing with Section 21099) to Division 13 of, to add and repeal Section 21168.6.6 of, and to repeal and add Section 21185 of, the Public Resources Code, relating to environmental quality.

Regional Regulations

Metropolitan Transportation Commission

The Metropolitan Transportation Commission (MTC) is the transportation planning, coordinating, and financing agency for the nine-county Bay Area, including Santa Mateo County. It also functions as the federally mandated metropolitan planning organization (MPO) for the region. It is responsible for regularly updating the Regional Transportation Plan (RTP), a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities.

As previously stated, the passage of AB 32, the State of California committed itself to reducing statewide GHG emissions. Subsequent to adoption of AB 32, the State adopted SB 375 as the means for achieving regional transportation-related GHG targets. Among the requirements of SB 375 is the creation of a Sustainable Communities Strategy (SCS) that provides a plan for meeting regional targets. The SCS and the RTP must be consistent with one other, including action items and financing decisions. MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the State CTC.

MTC and ABAG's *Plan Bay Area 2050* is the Bay Area's RTP/SCS. *Plan Bay Area 2050* was prepared by MTC in partnership with ABAG, the Bay Area Air Quality Management District, and the San Francisco Bay Conservation and Development Commission and adopted on October 21, 2021.[2] The SCS sets a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce greenhouse gas emissions from transportation (excluding goods movement) beyond the per capita reduction targets identified by California Air Resources Board. An overarching goal of *Plan Bay Area 2050* is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle miles traveled and associated greenhouse gas emissions reductions. The project site is not located within a Priority Development Area (PDA). The nearest PDA is the Railroad Corridor PDA, located about 850 feet south of the project site. The project site is located within a Transit Priority Area (TPA).[3]

The MTC has established its policy on Complete Streets in the Bay Area. The policy states that projects funded all, or in part, with regional funds (e.g. federal, State Transportation Improvement Program, and bridge tolls) must consider the accommodation of bicycle and pedestrian facilities, as described in Caltrans Deputy Directive 64. These recommendations do not replace locally adopted policies regarding transportation planning, design, and construction. Instead, these recommendations facilitate the accommodation of pedestrians, including wheelchair users, and bicyclists into all projects where bicycle and pedestrian travel is consistent with current adopted regional and local plans.

[2] Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), October 2021, *Plan Bay Area 2050*, https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf, accessed February 9, 2022.

[3] Metropolitan Transportation Commission, 2021, Priority Development Area - Transit Priority Area Overlay (2017), https://opendata.mtc.ca.gov/maps/MTC::priority-development-area-transit-priority-area-overlay-2017/explore?location=37.513278%2C-122.253965%2C17.00, accessed March 17, 2022.

City/County Association of Governments (C/CAG) of San Mateo County

The C/CAG of San Mateo County is responsible for providing countywide transportation planning. C/CAG is also the county's designated Congestion Management Agency and is responsible for implementing the Congestion Management Program (CMP). Each CMP must contain several components, including traffic level-of-service standards for freeway segments and standards for CMP Monitoring Intersections on principal arterials.

The CMP requires any new project that is projected to generate a net 100 or more peak hour trips on the CMP roadway network and is subject to CEQA review to follow the CMP policy and guidelines. Additionally, the CMP requires new developments that are projected to add 100 or more peak hour trips to the CMP roadway network to implement Transportation Demand Management (TDM) measures that would reduce project impacts. Draft revised project review thresholds released by C/CAG in 2021 propose to replace the 100-trip threshold with a set of new thresholds that vary based on project size and land use.[4]

Local Regulations

San Carlos 2030 General Plan

The City of San Carlos 2030 General Plan provides a description of the functional classification hierarchy of city streets in Chapter 5, *Circulation and Scenic Highways Element*. This General Plan Element identifies goals, policies, and actions related to the city's street network. In particular, it includes LOS standards for the signalized study intersections discussed in this section. The City of San Carlos General Plan policies relevant to transportation and traffic are listed below in Table 4.11-1, *City of San Carlos 2030 General Plan Policies Relevant to Transportation*.

TABLE 4.11-1 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO TRANSPORTATION

Policy Number	Policy
Chapter 5, Circulation and Scenic Highways (CSH) Element	
Policy CSH-2.2	Provide for adequate pedestrian and bicycle facilities as viable transportation alternatives in San Carlos.
Policy CSH-2.3	Access to public transportation facilities should be convenient and designed to encourage use of public transit.
Policy CSH-3.2	Support city-wide efforts to reduce vehicular trips within and through the community.
Policy CSH-3.3	Support the incorporation of Transportation Demand Measures in new development to reduce traffic impacts.
Policy CSH-3.7	Public sidewalks and walkways shall be designed to accommodate access in accordance with the Americans with Disabilities Act and shall be kept clear of obstruction.
Policy CSH-4.2	Reduce potential conflicts, safety hazards and physical obstacles between bicyclists, automobiles and pedestrians and ensure compliance with the Americans with Disabilities Act.

[4] City/County Association of Governments of San Mateo County, 2021, *Transportation Demand Management Policy Update Approach*, https://ccag.ca.gov/wp-content/uploads/2021/03/CCAG_TDM-Policy-Update-Approach-Document_Draft_Abridged_3-24-2021_v10b.pdf, accessed March 17, 2022.

TABLE 4.11-1 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO TRANSPORTATION

Policy Number	Policy
Policy CSH-6.1	Bicycling and walking facilities should be incorporated into all new development projects to the maximum extent feasible.

Source: City of San Carlos, 2009, *2030 General Plan*.

San Carlos Climate Mitigation and Action Plan

The City of San Carlos adopted its most recent Climate Mitigation and Action Plan (CMAP) in September 2021. The CMAP takes a comprehensive approach to reducing GHG emissions in San Carlos, and includes 23 measures designed to achieve the State-mandated GHG reduction goals set forth in AB 32. The transportation sector is the largest contributor to San Carlos' GHG emissions and the CMAP seeks to reduce these emissions through a variety of measures, including reducing VMT, transitioning to low-carbon transportation, prioritizing active transportation, supportive transportation, and supporting the transition to electric vehicles.

San Carlos Municipal Code

The San Carlos Municipal Code (SCMC) contains all ordinances for the city. The SCMC is organized by Title, Chapter and Section. It includes, among others, the adoption of the 2022 CBC. In addition to those listed below, vehicles and traffic are addressed in Title 10, *Vehicles and Traffic*, of the SCMC.

Title 8, *Health and* Safety, includes Chapter 8.50, *Traffic Impact Fee*, pursuant to the Mitigation Fee Act contained in Government Code Sections 66000 et seq. Traffic Impact Fees are assessed based upon evidence that a new development generates additional residents, employees, and structures, which in turn place an additional cumulative burden upon the local transportation system and should be expected to pay a share of the cost for new facilities. The Traffic Impact Fees were effective as of July 7, 2008, as part of the City of San Carlos Traffic Impact Fee Plan (Ordinance No. 1400, 2008).

Chapter 18.15, *General Site Regulations*, of the SCMC contains site regulations for development throughout the city. Section 18.15.130, *Visibility at intersections and driveways*, of the SCMC provides requirements regarding visibility at intersections and driveways, and states that vegetation and structures may not exceed 3 feet within sight distance triangles.

Chapter 18.18, *Landscaping*, of the SCMC contains requirements regarding landscaping in the city. Section 18.18.110, *Maintenance*, of the SCMC establishes that the City bears responsibility for maintaining public trees and landscaping, and that private property owners are responsible for trimming and maintaining private trees and landscaping. Section 18.18.110(D), *Visibility*, states, "Any shrubs, trees, or other foliage which, in the opinion of the Sheriff's Captain, obscures safe sight distance from driveways and corners shall be trimmed by the property owner to a condition satisfactory to the Sheriff's Captain."

Chapter 18.25, *Transportation Demand Management*, sets forth requirements to reduce the amount of traffic generated by new development; promotes more efficient utilization of existing transportation facilities and ensure that new developments are designed in ways to maximize the potential for

alternative transportation usage; and establishes an ongoing monitoring and enforcement program to ensure that the City's desired alternative mode use percentages are achieved. The chapter is applicable to new nonresidential development of 10,000 square feet or more, among other land uses. Section 18.25.030, *Performance Requirements*, requires projects to incorporate measures to meet vehicle trip generation rates that are 20 percent lower than the standard rates as established in the most recent edition of the Institute of Transportation Engineers (ITE) trip generation manual. Section 18.25.040, *Trip Reduction Measures*, requires any combination of the following TDM measures to achieve the required minimum vehicle trip generation reduction:[5]

1. Passenger Loading Zones. Passenger loading zones for carpool and vanpool drop-off located near the main building entrance.
2. Direct Route to Transit. A well-lighted path or sidewalk utilizing the most direct route to the nearest transit or shuttle stop from the building.
3. Pedestrian Connections. Safe, convenient pedestrian connections provided from the project to surrounding public streets and, if applicable, trails. Under this requirement, lighting, landscaping and building orientation are designed to enhance pedestrian safety.
4. Bicycle Connections. If a site is abutting a bicycle path, lane or route, provision of a bicycle connection close to an entrance to the building on the site.
5. Land Dedication for Transit/Bus Shelter. Where appropriate, land dedicated for transit or a bus shelter provided based on the proximity to a transit route.
6. Long-Term Bicycle Parking. Covered and secure long-term bicycle parking located within seventy-five feet of a main entrance. Long-term bicycle parking must be in at least one of the following facilities: 1) an enclosed bicycle locker; 2) a fenced, covered, locked or guarded bicycle storage area; or 3) a rack or stand inside a building that is within view of an attendant or security guard or visible from employee work areas.
7. Short-Term Bicycle Parking. Secure short-term bicycle parking located within fifty feet of a main entrance to the building.
8. Free Preferential Carpool and Vanpool Parking. Ten percent of vehicle spaces reserved for carpools or vanpools, with a minimum of one space required. The preferential parking spaces shall be provided free of charge.
9. Showers/Clothes Lockers. Shower and clothes locker facilities free of charge.
10. Transportation Management Association (TMA). Participation in or requirement for tenant to participate in a local TMA, the Peninsula Congestion Relief Alliance (Alliance) or a similar organization approved by the Director, that provides ongoing support for alternative commute programs.
11. Paid Parking at Prevalent Market Rates. Parking provided at a cost equal to the prevalent market rate, as determined by the City based on a survey of paid parking in the City and adjacent communities.

[5] Guidelines listing the number of trips that are reduced per trip reduction measure are available from the City/County Association of Governments of San Mateo County.

12. Alternative Commute Subsides/Parking Cash Out. Provide employees with a subsidy, determined by the applicant and subject to review by the Director, if they use transit or commute by other alternative modes.
13. Carpool and Vanpool Ride-Matching Services. Matching of potential carpoolers and vanpoolers by administering a carpool/vanpool matching program.
14. Guaranteed Ride Home. Guaranteed rides home in emergency situations for carpool, vanpool and transit riders. Rides shall be provided either by a transportation service provider (taxi or rental car) or an informal policy using company vehicles and/or designated employees.
15. Shuttle Program. Provision of a shuttle program or participation in an existing shuttle program approved by the Director and subject to any fees for the existing program.
16. Information Boards/Kiosks. Display of the following information in a prominent location, maintained by a designated TDM contact: transit routes and schedules; carpooling and vanpooling information; bicycle lanes, routes and paths and facility information; and alternative commute subsidy information.
17. Promotional Programs. Promotion and organization of events for the following programs: new tenant and employee orientation packets on transportation alternatives; flyers, posters, brochures, and emails on commute alternatives; transportation fairs; Spare the Air (June through October); Rideshare Week (October); trip planning assistance routes and maps.
18. Compressed Work Week. Allow employees or require tenants to allow employees to adjust their work schedule in order to complete the basic work requirement of five eight-hour workdays by adjusting their schedule to reduce vehicle trips to the worksite.
19. Flextime. Provide or require tenants to provide employees with staggered work hours involving a shift in the set work hours of all employees at the workplace or flexible work hours involving individually determined work hours.
20. On-Site Amenities. One or more of the following amenities provided on site: ATM, day care, cafeteria, limited food service establishment, dry cleaners, exercise facilities, convenience retail, post office, on-site transit pass sales.
21. Telecommuting. Provide or require tenants to provide opportunities and the ability for employees to work off site.
22. Other Measures. Additional measures not listed in this chapter, such as childcare facilities or an in-lieu fee that would be negotiated in a development agreement with the City.

Complete Streets Policy

The City of San Carlos adopted the Complete Streets Policy in October 2012, expressing its commitment to creating and maintaining Complete Streets that provide safe, comfortable, and convenient travel across streets through a comprehensive, integrated transportation network that serves all categories of users., Departments and agencies are to incorporate Complete Streets practices into routine part of everyday operations, work in coordination with other departments, agencies, and jurisdictions to maximize opportunities for Complete Streets, and maintain sensitivity to local conditions in planning and implementing street projects. Complete Street infrastructure shall be incorporated into all planning,

funding, design, approval, and implementation processes and departments and agencies are expected to approach every relevant project, program, and practice as an opportunity to improve streets and the transportation network.

Bicycle and Pedestrian Master Plan

The Bicycle and Pedestrian Master Plan was adopted on June 9, 2020, and establishes a long-term vision for improving walking and bicycling in San Carlos. The ultimate goal of the plan is to promote walking and bicycling through the creation of safe, comfortable and connected networks, and to encourage alternatives to single-occupancy motor trips. This includes maintaining and expanding the pedestrian and bicycle network, increasing support for walking and bicycling, and improving access and safety for pedestrians and bicyclists. The Master Plan provides a strategy to develop a comprehensive bicycling and walking network that provides access to transit, schools, and downtown, and identifies a plan to implement these project and programs through prioritization and phasing to ensure projects are manageable and fundable.

4.11.1.2 EXISTING CONDITIONS

Roadways

Regional Access

The following roadways provide regional access in the vicinity of the project site:

- U.S. Highway 101 is a north-south freeway serving San Carlos, San Francisco, the Peninsula, the North Bay, and the South Bay. The freeway connects to Interstate 80 (I-80) to the north as well as Route 84 and the Dumbarton Bridge to the east, which provides connections to the East Bay. Access to U.S. Highway 101 from the project site is provided via the southbound on-ramp at Holly Street, directly adjacent to the project site to the north, and via the northbound on-ramp at Holly Street, approximately 1,000 feet to the northeast of the project site. U.S. Highway 101 is identified as a CMP facility in C/CAG's 2001 *Final Congestion Management Program*.
- El Camino Real- State Route 82 (SR 82) is a north-south State highway that runs from its connection with Mission Street in Colma to its southern terminus at its intersection with The Alameda in San Jose. El Camino Real intersections Holly Street approximately 0.3 miles to the west of the project site. The San Carlos 2030 General Plan identifies El Camino Real as a State highway. El Camino Real is identified as a CMP facility in C/CAG's 2001 *Final Congestion Management Program*.

Local Access

The City of San Carlos' roadway system is comprised of freeways, State highways, arterial streets, collector streets, and minor streets. The *San Carlos 2030 General Plan* defers to Caltrans for definitions of freeways and State highways. Consistent with the *San Carlos 2030 General Plan,* arterials are defined as major streets that link residential, commercial, and industrial districts with freeways and highways, provide convenient access to other transportation facilities, and serve as primary emergency/evacuation routes. Arterial Streets typically include two to four travel lanes, with some parking and access point controls. The

San Carlos 2030 *General Plan* defines collector streets as roadways that transfer traffic from local trip generators and minor streets to arterial streets, typically consisting of two lanes and protected from cross-traffic. The *San Carlos* 2030 *General Plan* defines local streets as providing access to abutting properties, locations for easements, open space for light and air, and a firebreak between buildings. Local streets typically accommodate two lanes of traffic, curbside parking, sidewalks, and bicycle lanes, wherever possible.

Local vehicle, bicycle, and pedestrian access to the project site would be from Holly Street and Industrial Road. Local access to the project site is provided by nearby arterial and local roadways. Descriptions of these roadways are presented below:

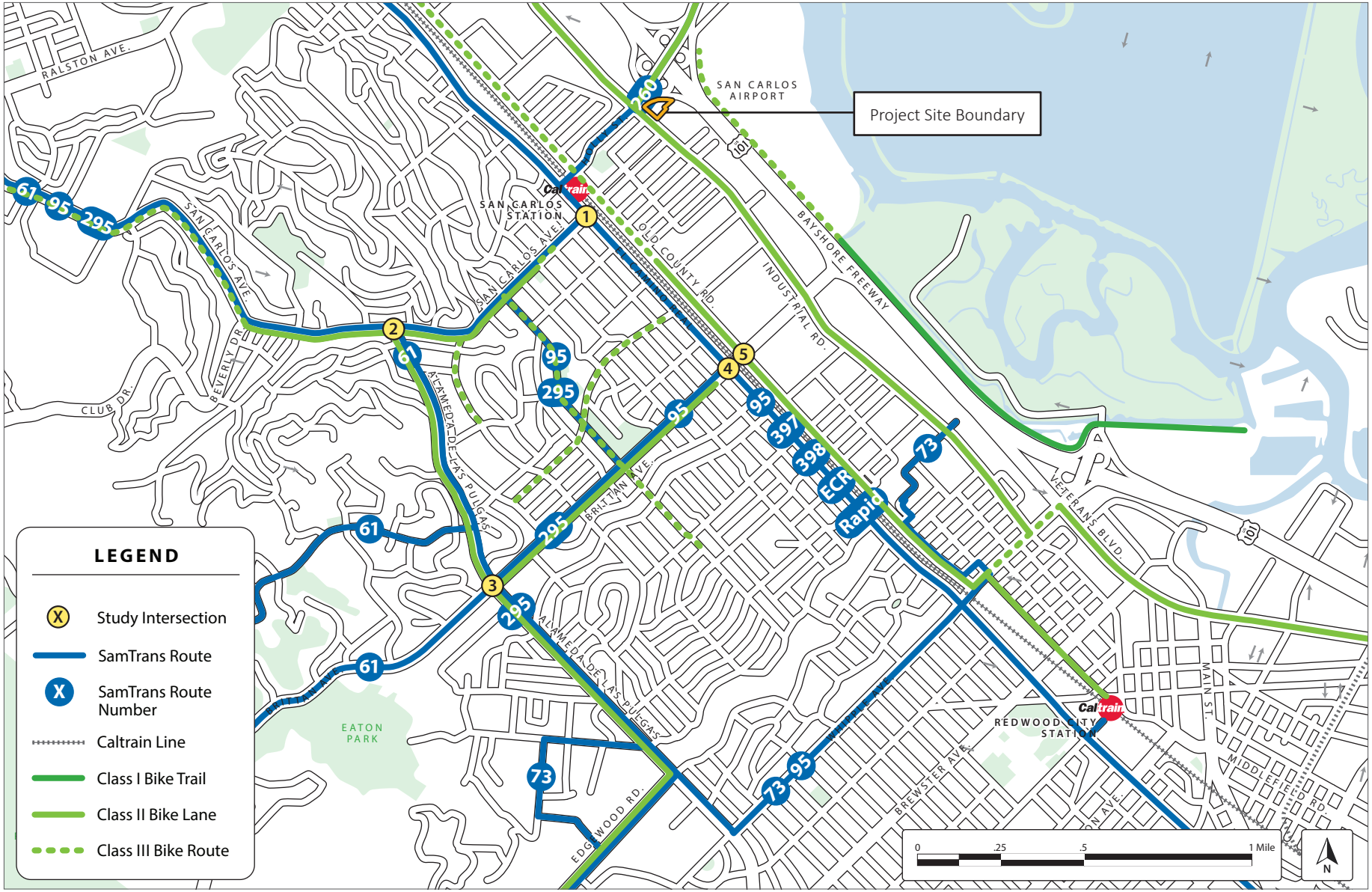
- Holly Street is an east-west arterial that terminates at Elm Street in San Carlos to the west and becomes Redwood Shores Freeway at the Twin Dolphin Drive intersection in Redwood Shores to the east. In the vicinity of the project site, pedestrian facilities are provided on both sides, except for the segment east of Industrial Road where sidewalks are only available on the east side of Holly Street. The San Carlos 2030 General Plan identifies Holly Street as an arterial street.
- Industrial Road is a north-south arterial that becomes Industrial Way in Redwood City to the south and terminates at its intersection with Harbor Boulevard in Belmont, just north of the San Carlos city limit. In the vicinity of the project site, Industrial Road has two travel lanes in each direction. Continuous sidewalks are provided on both sides of Industrial Road within the vicinity of the project site, and pedestrian facilities such as crosswalks, pedestrian signal phases, curb ramps, and street lighting are provided. Industrial Road is identified as an arterial street in the Son Carlos 2030 General Plan.
- Brittan Avenue is an east-west arterial that runs from the ramps at U.S. Highway 101 to its western terminus near Pulgas Ridge Preserve. In the vicinity of the project site, Brittan Avenue has two travel lanes in each direction with sidewalks on the north side of the street. Sidewalks are provided on both sides of Brittan Avenue between Industrial Road and the U.S. Highway 101 ramps. The San Carlos 2030 General Plan identifies Brittan Avenue as an arterial street.

Transit Services

Transit services in San Carlos are shown in Figure 4.11-1, *Transit and Bicycle Network*.

The project site is served by local public transit service provided by the San Mateo County Transit District (SamTrans).

SamTrans operates bus lines within San Mateo County, as well as to and from locations in San Francisco and Palo Alto. There are four bus routes located within the immediate vicinity of the project site—SamTrans Route 260, which stops near the intersection of Holly Street and Airport Way, approximately 0.5 miles from the project site; and SamTrans Route 397, Route 398, and Route ECR, which stop at the San Carlos Caltrain Station located approximately 0.4 miles from the project site.



Source: CHS Consulting Group, 2022. PlaceWorks, 2022.

Project Site Boundary

Figure 4.11-1
Transit and Bicycle Network

Caltrain

The Peninsula Commute Service (Caltrain) provides rail passenger service on the Peninsula between Gilroy and San Francisco. The most convenient station to the project site is the San Carlos Station, which is located approximately 0.4 miles southwest of the project site. Caltrain currently operates approximately 56 trains each weekday, with a combination of baby bullet, limited-express, and local services. Headways during the AM and PM peak period are approximately 10 to 30 minutes.

Pedestrian Facilities

In general, a connected network of sidewalks, crosswalks, pedestrian signals, and curb ramps provide access for pedestrians in the vicinity of the project site; however, gaps in sidewalk coverage exist along East San Carlos Avenue and Holly Street. The City of San Carlos Bicycle and Pedestrian Master Plan designates Industrial Road as a Priority Pedestrian Route.

Bicycle Facilities

Bicycle facilities include bicycle lanes, trails, and paths, as well as bicycle parking and bicycle lockers. On-street bicycle facilities include Class I bikeways (trails or shared-use paths with exclusive right-of-way for use by bicyclists or pedestrians); Class II bikeways (bicycle lanes striped within the paved areas of roadways and established for the preferential use of bicycles); Class III bikeways (signed bicycle routes that allow bicycles to share travel lanes with vehicles); and Class IV separated bikeways (on-street bike facilities that are physically separated from traffic by curbs, plant boxes, bollards, grade separation, or parked cars for exclusive right-of-way for use by bicyclists). In the project area, Class II bike lanes exist on Old County Road, Industrial Road, and Holly Street, and Class III bike routes exist on Old County Road and East San Carlos Avenue. Bicyclists ride in the roadway and/or on sidewalks along all other streets within the project area.

Emergency Vehicle Access

The street network serving the project area accommodates the movement of emergency vehicles to the project site. In the event of an emergency, emergency vehicles can access the project site via Industrial Road.

4.11.2 STANDARDS OF SIGNIFICANCE

The proposed project would have a significant impact with regard to transportation and traffic, if it would:

1. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities.
2. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).
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 significant cumulative impacts with respect to transportation.

4.11.3 IMPACT DISCUSSION

TRAN-1 The proposed project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Transportation Demand Management

The City of San Carlos 2030 General Plan and CMAP include several policies and measures to support the City's goals to reduce vehicle trips. Under SCMC Chapter 18.25, development projects in San Carlos are required to include a TDM plan to reduce project trip generation by 20 percent.

The TDM plan prepared for the proposed project (see Appendix H, *Transportation*, of this Draft EIR) identifies project features that reduce vehicle trips and includes a range of strategies suited to the project and location. The TDM Plan estimates that these strategies would potentially reduce the number of vehicle trips generated by approximately 32 percent, meeting the 20 percent trip requirement that is set forth in the SCMC. Therefore, the proposed project would not conflict with applicable policies related to vehicle trips and the impact would be *less than significant.*

Transit Service

Policy CSH-2.3 of the City of San Carlos 2030 General Plan states that access to public transportation facilities should be convenient and designed to encourage use of public transit. The addition of project-generated demand is generally expected to incrementally increase the use of transit within the project area. The additional transit trips would be spread out during the day and over several SamTrans bus lines as well as Caltrain rail service. While the proposed project's transit amenities are expected to encourage the use of transit and contribute to the project's overall trip generation reduction, transit ridership generated by the proposed project would not be substantial enough to require expanded transit services.[6] Existing transit facilities, including bus stops and Caltrain service, are within an acceptable walking distance of the project site.[7] Therefore, the proposed project would not conflict with applicable policies related to transit services and the impact would be *less than significant*.

Pedestrian Facilities

The City of San Carlos 2030 General Plan contains several policies that promote safe pedestrian facilities and the incorporation of pedestrian facilities in new development projects. Under existing conditions, In general, a connected network of sidewalks, crosswalks, pedestrian signals, and curb ramps provide access

[6] Hexagon Transportation Consultants, 2022, Indigo Hotel at 501 Industrial Road Draft Transportation Demand Management Plan, page 17.

[7] W-Trans, 2022, *501 Industrial Road CEQA Transportation Analysis*, page 8.

for pedestrians in the vicinity of the project site; however, gaps in sidewalk coverage exist along East San Carlos Avenue and Holly Street. The intersection nearest to the project site – Holly Street and Industrial Road – provides crosswalks and pedestrian signals. Protected crossings with crosswalks and pedestrian phases are provided at nearby intersections. Sidewalks are provided along all roadway segments approaching this intersection, with the exception of the north side of Holly Street on the westbound approach. Pedestrians walking between the project site and the Caltrain station would likely use the Industrial Road and East San Carlos Avenue intersection, which provides crosswalks and pedestrian signals. Industrial Road provides sidewalks on both sides of the roadways, while East San Carlos Avenue provides sidewalks on only one side of the roadway. The proposed project would provide new sidewalks landscaped with street trees along the project's frontage on Industrial Road, including an enlarged sidewalk and landscaped area at the corner of Industrial Road and Holly Street. The pedestrian facilities directly serving the project site would be consistent with City policies and requirements; therefore, the impact would be *less than significant*.

Bicycle Facilities

The City of San Carlos 2030 General Plan contains several policies that promote bicycle safety and the incorporation of bicycle facilities in new development projects. Under existing conditions, bicycle facilities in the project site vicinity include Class II bike lanes and Class III bike routes that provide accessibility from the project site to nearby destinations including Downtown San Carlos, the San Carlos Caltrain Station, and regional bus lines along El Camino Real. The proposed project would provide short-term bicycle parking located near the building entrance, project driveway, and courtyard; long-term bicycle parking located in a secure bicycle storage room; and employee showers, changing rooms, and lockers. Therefore, the bicycle facilities directly serving the project site would be consistent with City policies and requirements and the impact would be *less than significant*.

Significance without Mitigation: Less than significant.

TRAN-2 The proposed project would not conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b).

SB 743 established the potential increase in VMT associated with a project as the basis for determining transportation impacts of development projects. Guidance is provided by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory* (2018) and the City of San Carlos' *Transportation Significance Criteria Implementing Vehicle Miles Traveled* (2020). Neither publication specifically addresses hotel land uses, indicating that a VMT assessment on a case-by-case basis is allowed.

According to the walkshed map that is part of the City's Transportation Significance Criteria, the project site is located within the half-mile walkshed of high-quality transit stops, which include both the El Camino Real transit corridor and the Caltrain Station.

For land uses not addressed in the OPR Technical Advisory, it is common practice to consider whether the land use of interest has travel characteristics that are similar to the residential, employment-based, or

retail land use types that are addressed in the OPR Technical Advisory. If so, similar VMT assessment methodologies can often be used. Hotels and other visitor-focused uses require consideration of the project's intended customer base and where those customers would otherwise have stayed in the project area if the project were not constructed. Unless a hotel project also includes construction of a major new attraction or convention component, on its own it is unlikely to draw new visitors to the city and instead serves to redistribute where visitors choose to stay. This shift in travel patterns and VMT is similar to how OPR considers retail uses, in which many types of retail projects may generally be presumed to have a less-than-significant VMT impact since the total amount of shopping that occurs in a given geographic area tends to remain unchanged and, in fact, adding new retail uses to a community often reduces the distance that people need to drive on shopping trips. The City of San Jose has chosen to apply this methodology of treating hotel uses similar to retail, where small- to mid-sized hotels can be expected to *shift* travel patterns rather than *generate* new VMT, and can generally be presumed to have a less-than-significant transportation-related VMT impact.

The addition of a new hotel in San Carlos would not directly increase the total amount of guest lodging demand in the region but would shift where some guests in the city choose to stay. The total VMT generated by visitors in the city would be unlikely to change, and in fact could reduce slightly if future guests are comprised of people who were already intending to visit San Carlos and would otherwise have stayed in neighboring cities. This effect would be most apparent for hotel guests intending to visit one of the organizations within the East Side Innovation District, which is comprised of multiple companies totaling over 2 million square feet of office and research space and located within one mile of the project site. By adding hotel rooms for business travelers within the East Side Innovation District, the vehicle trip lengths generated by visitors would be reduced when compared to visitors who otherwise would have stayed farther away.

The OPR *Technical Advisory* indicates that retail development over 50,000 square feet is typically regional serving and subject to quantitative VMT analysis. Retail development under 50,000 square feet can generally be considered local-serving and screened from further VMT analysis per the *Technical Advisory*. The City of San Carlos has established a more stringent threshold that states that retail projects consisting of up to 15,000 square feet can be classified as being local and therefore can be presumed to have a less-than-significant VMT impact.

Based on formulas contained in the ITE *Trip Generation Manual*, a 15,000-square-foot retail development would be expected to generate 817 daily vehicle trips. A retail project, or project exhibiting travel characteristics similar to retail such as a hotel, could therefore be considered to have a less-than-significant VMT impact if it generates fewer than this number of vehicle trips per day.

The proposed project is expected to generate approximately 756 daily vehicle trips.[8] Because the proposed project would generate fewer vehicle trips than would be generated by a 15,000-square-foot retail project, it may be presumed to have a *less-than-significant* VMT impact.

Significance without Mitigation: Less than significant.

[8] W-Trans, 2022, *501 Industrial Road CEQA Transportation Analysis*, page 1.

TRAN-3 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).

Pedestrian access to the proposed hotel building would be provided via a series of pedestrian pathways located between the building and Industrial Road. This network of pathways would provide access between the Industrial Road sidewalk and the hotel building. Sole vehicular access to the project site would be provided via an existing full-access driveway on Industrial Road located 280 feet south of Holly Street. The project's driveway and internal roadway would be designed to current City standards.

At driveways, a substantially clear line of sight should be maintained between the driver of a vehicle waiting to enter the street and the driver of an approaching vehicle. Sight distances along Industrial Road at the proposed project driveway were evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans.[9] The recommended sight distances for driveway approaches are based on stopping sight distance and use the approach travel speed as the basis for determining the recommended sight distance. The posted speed limit for Industrial Road is 35 miles per hour. Based on this speed limit, the minimum stopping sight distance required along Industrial Road is 250 feet. Industrial Road is relatively flat and straight, with favorable sight lines along the project frontage. Sight distances at the proposed project driveway would extend up to 350 feet to both the north and south along Industrial Road. For a motorist traveling along southbound Industrial Road intending to turn left into the proposed project driveway, the stopping sight distance looking south along Industrial Road also extends up to 350 feet. Therefore, the sight distance for the proposed project driveway is adequate.[10]

The proposed project would provide a 75-foot southbound left-turn storage lane along Industrial Road into the proposed project driveway, which would require shortening the 275-foot northbound left-turn pocket on Industrial Road to Holly Street. The Left-Turn Study prepared for the proposed project (see Appendix H, *Transportation*, of this Draft EIR) conducted a left-turn queuing analysis to determine the 95th percentile queue length for the northbound left turn from Industrial Road to Holly Street. The 95th percentile queue length value indicates that during peak hour, a queue of this length or less would occur on 95 percent of the signal cycles, or a queue length larger than the 95th percentile queue would only occur on 5 percent of the signal cycles (about one cycle during peak hour for a signal with 120-second cycle length. Turn pocket storage designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time for a movement. The study found that the 95th percentile queue length for the northbound left turn from Industrial Road to Holly Street would be 150 feet with construction of the proposed project. Therefore, the length of the northbound left-turn lane on Industrial Road to Holly Street could be safely reduced from 275 feet to 150 feet to accommodate the proposed southbound left-turn storage lane along Industrial Road into the proposed project driveway. Furthermore, at the request of the City, the proposed project would install a right-turn marking at the

[9] California Department of Transportation, 2019, *Highway Design Manual*, Seventh Edition.
[10] W-Trans, 2022, *501 Industrial Road CEQA Transportation Analysis*, page 10.

driveway with a right-turn only sign to restrict outbound traffic at the proposed project driveway to right turns only.[11]

As discussed above, the 350-foot sight lines at the proposed project driveway provide adequate distances for turning movements from the project site. All roadway modifications proposed by the project would be designed and constructed to meet current City standards and therefore would have no impact in terms of potentially increasing hazards related to design features. Therefore, the proposed project would not increase hazards due to geometric design features and would result in a *less-than-significant* impact.

Significance without Mitigation: Less than significant.

TRAN-4 The proposed project would result in inadequate emergency access.

The project site is well served by local arterial roadways as well as the adjacent ramps to U.S. Highway 101, and future project occupants could evacuate the project area in multiple directions in the event of an emergency. The proposed project would not include any special circumstances or barriers that would impede emergency vehicle access to, and emergency evacuation from, the project site.

In the event of an emergency, emergency vehicles can access the project site via Industrial Road. The proposed project driveway and internal roadways would be designed and constructed to current City standards to accommodate both passenger and emergency vehicles, as illustrated on the Fire Truck Turning Template sheet prepared for the proposed project (see Appendix B, *Project Site Plans*, of this Draft EIR). Section D104.1 of the CFC requires a second means of fire department access to any commercial or industrial building over 30 feet or three stories in height. Because the proposed hotel would exceed this height, a second driveway would be required by the CFC. The project applicant has submitted an Alternative Materials and Methods Request (AMMR) to address this requirement through an alternate approach meeting the intent of code requirements. Under the alternate approach, the proposed project would provide automatic standpipes supplied by an electrically driven fire pump with secondary power via an on-site generator. At the time of publication of this Draft EIR, the proposed AMMR has been conditionally approved.[12] Without final approval of the AMMR, the proposed project would have a *significant* impact related to emergency access, and mitigation is required.

Impact TRAN-4: The proposed emergency vehicle access does not comply with applicable code requirements related to fire safety, and the proposed project has inadequate emergency access due to the lack of a second emergency egress point.

Mitigation Measure TRAN-4: Prior to issuance of building permits, the project sponsor shall obtain final approval of an Alternative Materials and Methods Request(s) from the City of San Carlos.

Significance with Mitigation: Less than significant.

[11] Hexagon Transportation Consultants, Inc., June 29, 2023, *Memorandum: Left-Turn Study for the Proposed Inigo Hotel in San Carlos, California.*

[12] The conditionally approved AMMR is in contained in Appendix I, *Emergency Access*, of this Draft EIR.

TRAN-5 The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in cumulative significant impacts regarding traffic and transportation.

A cumulative VMT analysis is not required for CEQA pursuant to OPR's 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA. Therefore, a cumulative transportation impact assessment is not provided regarding consistency with CEQA Guidelines Section 15064.3(b).

The impact assessment related to TDM measures, pedestrian facilities, bicycle facilities, transit services, safety, and emergency access, would be the same as described in impact discussions TRAN-1 through TRAN-4, which would be less than significant, because the project's TDM effectiveness, provision of adequate pedestrian and bicycle facilities, site design to ensure traffic safety, and site access would be independent of other cumulative development projects. None of the cumulative projects listed in Table 4-1, *Cumulative Development Projects*, in Chapter 4, *Environmental Analysis*, of this Draft EIR are close enough to the project site or situated in such a way that a cumulative project's design would be cumulatively considerable with that of the proposed project. The project at 405 Industrial Road is the cumulative project nearest to the proposed project, located to the north on the opposite side of Holly Street; the design and operation of this cumulative development project would not affect the impact conclusions in impact discussions TRAN-1 through TRAN-4, and vice versa.

Therefore, cumulative transportation impacts would be *less-than-significant*.

Significance without Mitigation: Less than significant.

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4.12 TRIBAL CULTURAL RESOURCES

This chapter describes the regulatory framework and existing conditions on the project site related to aesthetics, and the potential impacts of the project on tribal cultural resources.

4.12.1 ENVIRONMENTAL SETTING

4.12.1.1 REGULATORY FRAMEWORK

Federal Regulations

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (United States Code, Title 16, Sections 470aa–mm) became law on October 31, 1979, and has been amended four times. It regulates the protection of archaeological resources and sites that are on federal and Indian lands.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (United States Code, Title 25, Sections 3001 et seq.) is a federal law passed in 1990 that provides a process for museums and federal agencies to return certain Native American cultural items—such as human remains, funerary objects, sacred objects, or objects of cultural patrimony—to lineal descendants and culturally affiliated Indian tribes.

State Regulations

California Health and Safety Code

California Health and Safety Code Section 7050.5 requires that in the event that human remains are discovered within the project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission (NAHC).

California Public Resources Code

PRC Sections 5097.9 through 5097.991 provide protection to Native American historical and cultural resources, and sacred sites and identifies the powers and duties of the NAHC. It also requires notification to descendants of discoveries of Native American human remains and provides for treatment and disposition of human remains and associated grave goods.

California Register of Historical Resources

The California Register of Historic Resources (California Register) establishes a list of properties to be protected from substantial adverse change (Public Resources Code Section 5024.1). The State Office of Historic Preservation (OHP) has determined that buildings, structures and objects 45 years or older may be of historical value. A historical resource may be listed in the California Register if it meets any of the following criteria:

- It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- It is associated with the lives of persons important in California's past.
- It 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 value.
- It has yielded or is likely to yield information important in prehistory or history.

The California Register includes properties that are listed or have been formally determined eligible for listing in the National Register, State Historical Landmarks and eligible Points of Historical Interest. Other resources that may be eligible for the California Register, and which require nomination and approval for listing by the State Historic Resources Commission, include resources contributing to the significance of a local historic district, individual historical resources, historical resources identified in historic surveys conducted in accordance with OHP procedures, historic resources or districts designated under a local ordinance consistent with the procedures of the State Historic Resources Commission, and local landmarks or historic properties designated under local ordinance.

Assembly Bill 52

Assembly Bill (AB) 52 took effect July 1, 2015 and requires inclusion of a new section in California Environmental Quality Act (CEQA) documents titled Tribal Cultural Resources, which include heritage sites. Under AB 52, a tribal cultural resource is defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources. Or the lead agency, supported by substantial evidence, chooses at its discretion to treat the resource as a tribal cultural resource.

AB 52 requires consultation with tribes at an early stage to determine whether the project would have an adverse impact on the tribal cultural resource and define mitigation to protect them. Per AB 52, within 14 days of deciding to undertake a project or determining that a project application is complete, the lead agency must provide formal written notification to all tribes who have requested it. The tribe then has 30 days of receiving the notification to respond if it wishes to engage in consultation. The lead agency must initiate consultation within 30 days of receiving the request from the tribe. Consultation concludes when both parties have agreed on measures to mitigate or avoid a significant effect to a tribal cultural resource, or a party, after a reasonable effort in good faith, decides that mutual agreement cannot be reached. Regardless of the outcome of consultation, the CEQA document must disclose significant impacts on tribal cultural resources and discuss feasible alternatives or mitigation that avoid or lessen the impact.

Local Regulations

The San Carlos 2030 General Plan outlines various goals, policies, and actions relevant to cultural resources in San Carlos in the Land Use Element. The policies relevant to the proposed project are listed in Table 4.12-1, *City of San Carlos 2030 General Plan Policies Relevant to Tribal Cultural Resources*.

TABLE 4.12-1 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO TRIBAL CULTURAL RESOURCES

Policy Number	Policy Text
Chapter 3, Land Use (LU) Element	
Policy LU-12.5	Treat with respect and dignity any human remains discovered during implementation of public and private projects within the city and fully comply with the California Native American Graves Protection and Repatriation Act and other appropriate laws.

Source: City of San Carlos, 2009, *2030 General Plan*.

4.12.1.2 EXISTING CONDITIONS

This section provides an overview of the history of San Carlos and resources of tribal cultural significance that may be affected by the proposed project.

Tribal Cultural Resources

The City of San Carlos contacted the NAHC seeking the names of Native American individuals and groups that would be appropriate to contact regarding the proposed project. A total of 6 local Native American representatives were identified as potentially having local knowledge. A representative of each the following tribes was sent a letter requesting information about potential resources at or near the project site:

- Amah Mutsun Tribal Band of Mission San Juan Bautista
- Costanoan Rumsen Carmel Tribe
- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Indian Tribe fo the SF Bay Area
- The Ohlone Indian Tribe
- Wuksache Indian Tribe/Eshom Valley Band

The City notified all tribal representatives about the proposed project and asked for information about potential resources at or near the project site. No responses were received from the aforementioned tribes.

4.12.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant tribal cultural resources impact if it would:

1. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21704 as either a site, feature, place, or 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:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of Historical Resources as defined in Public Resources Code Section 5020.1(k), or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

2. In combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to tribal cultural resources.

4.12.3 IMPACT DISCUSSION

TCR-1	**The proposed project could 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 listed or eligible for listing in the California Register of Historic Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).**

The proposed project would result in a substantial adverse change in the significance of a tribal cultural resource if it altered resources listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources or a resource determined to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

The City began the consultation process under Government Code Section 21084.3(c) (commonly known as AB 52) by contacting the NAHC to inform them about the proposed project. Pursuant to AB 52, the NAHC provided a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the proposed project. With the list of tribes, the City contacted local tribal representatives by letter, inviting them to initiate consultation. The purpose of the letter was to inform nearby tribes of the proposed project. The letter provided a description of the proposed project, as well as figures of the project location and site plan. As of publication of this Draft Environmental Impact Report, no responses have been received from the tribes.

However, it remains possible that a currently unknown tribal cultural resource could be encountered during construction activities. Without mitigation measures, unearthing tribal cultural resources could result in a *significant* impact.

Impact TCR-1.1: Implementation of the proposed project may cause a substantial adverse change in the significance of a tribal cultural resource, as defined in Public Resources Code Section 21074.

Mitigation Measure TCR-1.1: Project supervisors, contractors, and equipment operators shall participate in an Archaeological Resource Awareness Training, conducted by a Secretary of Interior-qualified archaeologist, to become familiar with the type of artifacts and features that could be encountered during project-related ground disturbing activities, as well as the procedures to follow if archaeological resources are unearthed during construction. If archaeological resources are encountered during excavation or construction, construction personnel shall immediately suspend all activity within 100 feet of the suspected resources and the City and a licensed archaeologist shall be contacted to evaluate the situation. A licensed archaeologist shall be retained to inspect the discovery and determine the significance of the find and the appropriate mitigation. If the deposits are determined to be potentially significant, the resources shall be avoided if feasible. If avoidance is not feasible, project impacts shall be mitigated in accordance with the recommendations of the archeologist, in coordination with the City, local tribe, and the California Environmental Quality Act (CEQA) Guidelines Section 15126.4 (b)(3)(C), which requires implementation of a data recovery plan. Once the recovery plan has been reviewed and approved by the City, implemented, and any appropriate resource recovery completed, project construction activity within the area of the find may resume.

Significance with Mitigation: Less than significant.

Impact TCR-1.2: Implementation of the proposed project could cause a substantial adverse change in the significance of a tribal cultural resource pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

Mitigation Measure TCR-1.2: In the event a human burial or skeletal element is identified during excavation or construction, all work must stop within 100 feet of the discovery area and the area shall be secured to prevent further disturbance. The City and the San Mateo County Coroner's office shall be notified immediately. If deemed prehistoric, the Coroner's office would notify the Native American Heritage Commission within 24 hours. The Native American Heritage Commission would identify a "Most Likely Descendant (MLD)." The archaeological consultant and MLD, in conjunction with the project sponsor, shall formulate an appropriate treatment plan for the find, which might include, but not be limited to, respectful scientific recording and removal, being left in place, removal and reburial on-site, or elsewhere. Associated grave goods are to be treated in the same manner.

Significance with Mitigation: Less than significant.

TCR-2 The proposed project would not result in cumulatively considerable significant impacts in combination with past, present, and reasonably foreseeable projects.

Cumulative impacts to tribal cultural resources occur when a series of actions leads to adverse effects on local Native American tribes or tribal lands. No tribal cultural resources have been identified on the project site or within the immediate vicinity. Further, in association with CEQA review, future AB 52 consultations with Native American tribes to identify tribal cultural resources would be required for projects that have the potential to cause significant impacts to tribal cultural resources.

Mitigation Measure TCR-1.1 would ensure that any buried archaeological resources, if encountered, would be properly handled. Mitigation Measure TCR-1.2 would ensure that any potential human remains encountered during site excavation would be properly handled. Additionally, the existing federal, State, and local regulations and policies described throughout this chapter serve to protect any as-yet-undiscovered cultural and tribal cultural resources. Continued compliance with these regulations and implementation of existing policies and requirements would preclude cumulative impacts to the maximum extent practicable. Therefore, in combination with past, present, and reasonably foreseeable projects, the proposed project would result in a *less-than-significant* cumulative impact with respect to all cultural and tribal cultural resources.

Significance without Mitigation: Less than significant.

4.13 UTILITIES AND SERVICE SYSTEMS

This chapter describes the potential impacts associated with implementation of the proposed project on utilities and service systems, which includes water supply and demand, wastewater (sewage) conveyance and treatment, storm drainage systems, solid waste collection and disposal systems, and other utilities. Stormwater and flooding impacts related to hydrology and water quality are addressed in detail in Chapter 4.8, *Hydrology and Water Quality*, of this Draft Environmental Impact Report (EIR); impacts associated with the capacity of the stormwater infrastructure are discussed in this chapter. Energy use, energy providers, and the energy infrastructure also are addressed in detail in Chapter 4.4, *Energy*, of this Draft EIR; this chapter discusses the potential impact of the proposed project on electricity and telecommunications utilities.

In each section of this chapter, a summary of the relevant regulatory framework and existing conditions is followed by a discussion of potential project-level and cumulative impacts from implementation of the proposed project.

4.13.1 WATER

4.13.1.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

Federal Safe Drinking Water Act

The Safe Drinking Water Act authorizes the Unites 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 human-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 Department of Health Services 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 was signed into law on October 23, 2018, and 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, the act requires that drinking water systems that serve more than 3,300 people develop or update risk assessments and emergency response plans. Risk assessments and emergency response plans must be certified by the USEPA within the deadline specified by the act.

State Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Act (Water Code Sections 13000 et seq.) passed in 1969 and was amended in 2013. It is the basic water quality control law for California. Under this act, the SWRCB has authority over State water rights and water quality policy. The 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. San Carlos is overseen by the San Francisco Bay RWQCB (Region 2).

Urban Water Management Planning Act (Senate Bills 610 and 221)

The California Urban Water Management Planning Act and Section 10620 of the Water Code require that all urban water suppliers in California that provide water to more than 3,000 customers or supply more than 3,000 acre-feet per year (AFY)[2] to prepare and adopt an Urban Water Management Plan (UWMP) and update it every five years. The act is intended to support efficient use of urban water supplies. It requires the UWMP to compare water supply and demand over the next 20 years for normal years, single dry years, and multiple dry years and to determine current and potential recycled water uses. Senate Bill (SB) 610 and SB 221 were enacted to 1) ensure better coordination between local water supply and land use decisions and 2) confirm that there is an adequate water supply for new development. Requirements of an UWMP include: [3]

- Plans for water supply and assesses reliability of each source of water over a 20-year period in 5-year increments.
- Identification and quantification of adequate water supplies, including recycled or non-potable water, for existing and future demands in normal, single-dry, and multiple-dry years.
- Implementation of conservation measures and the efficient use of urban water supplies. Significant new requirements for quantified demand reductions were added by the Water Conservation Act of 2009 (Senate Bill 7 of Special Extended Session 7 (SBX7-7)), which amends the act and adds new water conservation provisions to the Water Code.

[1] John Barasso, United States Senator – Wyoming, 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, accessed August 29, 2022.

[2] One acre-foot is the amount of water required to cover one acre of ground (43,560 square feet) to a depth of one foot.

[3] California Legislative Information, 2020, Water Code, Division 6. Conservation, Development, and Utilization of State Waters, Part 2.6. Urban water Management Planning, Chapter 3. Urban Water Management Plan, Article 1. General Provisions, https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=WAT&division=6.&title=&part=2.6.&chapter=3.&article=1, accessed August 29, 2022.

SB 610 requires the preparation of a Water Supply Assessment (WSA) for certain types of projects subject to California Environmental Quality Act (CEQA). The proposed project does not meet the criterion for preparation of a WSA, because it consists of less than 500 hotel rooms.

Water Conservation Act of 2009 (Senate Bill X7 7)

New mandatory requirements for increasing water use efficiency, per State law (SB-X7 7), mandate the reduction of per capita water use and agricultural water use throughout the State by 20 percent by 2020. Requirements included, among others, convening of a task force for developing alternative best management practices, identifying per capita use targets, reporting requirements, and increasing incentives and removing barriers for promotion of regional water resource management practices.

2018 Water Conservation Legislation

In 2018, the California Legislature enacted two policy bills (SB 606 and Assembly Bill [AB] 1668) to establish long-term improvements in water conservation and drought planning to adapt to climate change and longer and more intense droughts in California. The Department of Water Resources and the SWRCB will develop new standards for:

- Indoor residential water use
- Outdoor residential water use
- Commercial, industrial, and institutional water use for landscape irrigation with dedicated meters
- Water loss

Urban water suppliers are required to stay within annual water budgets based on their standards for their service areas, and to calculate and report their urban water use objectives in an annual water use report. For example, SB 606 and AB 1668 define a 55-gallon-per-person daily standard for indoor residential use until 2025, when it decreases to 52.5 gallons, and further decreases to 50 gallons by 2030. The legislation also includes changes to UWMP preparation requirements.[4]

Water Conservation in Landscaping Act of 2006

The Water Conservation in Landscaping Act (AB 1881) required the Department of Water Resources (DWR) to update 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. The 2015 revisions to the MWELO increased water efficiency standards for new and retrofitted landscapes through more efficient irrigation systems, greywater usage, and on-site stormwater capture and by limiting the portion of landscapes that can be covered in turf.[5]

[4] California Department of Water Resources, April 14, 2020, 2018 Water Conservation Legislation, https://water.ca.gov/Programs/Water-Use-And-Efficiency/2018-Water-Conservation-Legislation, accessed August 29, 2022.

[5] California Legislative Information, September 2006, Assembly Bill No. 1881, Chapter 559, https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=200520060AB1881, accessed August 29, 2022.

The City of San Carlos has enacted these provisions in the San Carlos Municipal Code (SCMC) Section 18.18.080, *Water-Efficient Landscaping and Irrigation*.

The landscape plan review process requires submittal of the maximum applied water allowance and estimated total water use worksheets as well as grading plans, landscape planting plans, and irrigation design plans.[6]

California Building Code: CALGreen

The California Building Standards Commission adopted the nation's first green building standards in July 2008, the California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), also known as CALGreen. CALGreen applies to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure in California unless otherwise indicated in the code. CALGreen establishes planning and design standards for sustainable site development, including water conservation measures and requirements that new buildings reduce water consumption by 20 percent below a specified baseline. CALGreen is updated every three years to allow for consideration and possible incorporation of new efficiency technologies and methods. The mandatory provisions of CALGreen became effective January 1, 2011, and the latest version, the 2022 California Green Building Standards Code, becomes effective on January 1, 2023.[7] The building efficiency standards are enforced through the local building permit process. The City of San Carlos adopts CALGreen and its latest updates under Section 15.04.125, *Title 24, Part 11 California Green Building Standards Code (CALGreen)*, of the SCMC.

California Plumbing Code

The latest version of the California Plumbing Code (California Code of Regulations, Title 24, Part 5) was issued in 2022 and is updated on a three-year cycle. The latest version becomes effective on January 1, 2023. It includes new standards for plumbing fixtures, new provisions for storm drain systems, and design criteria for potable and recycled water systems. The City adopts the California Plumbing Code and latest updates under Section 15.04.070, *Title 24, Part 5, California Plumbing Code with Appendices,* of the SCMC.

California Water Code

The California Water Code addresses issues such as water shortage emergencies, on-site wastewater treatment systems, potable water reuse, greywater systems, appropriation of water, water rights, and the establishment of California water districts.

[6] City of San Carlos, 2021, Municipal Code - Chapter 18.18.08, *Water efficient landscaping and irrigation*, https://www.codepublishing.com/CA/SanCarlos/#!/SanCarlos18/SanCarlos1818.html#18.18.080, accessed October 11, 2021.

[7] Department of General Services, Building Standards Commission, 2022, CALGreen, https://www.dgs.ca.gov/BSC/CALGreen#codes, accessed November 3, 2022.

Mandatory Water Conservation

Following the declaration of a state of emergency on July 15, 2014, due to drought conditions, the SWRCB adopted Resolution No. 2014-0038 for emergency regulation of Statewide water conservation efforts. These regulations, which went into effect on August 1, 2014, were intended to reduce outdoor urban water use and persuade all California households to voluntarily reduce their water consumption by 20 percent. Water companies with 3,000 or more service connections are required to report monthly water consumption to the SWRCB.

2018 Water Conservation Legislation (Assembly Bill 1668 and Senate Bill 606)

On May 31, 2018, Governor Brown signed two bills (AB 1668 and SB 606) that established long-term standards for water suppliers. The bills called for the creation of new urban efficiency standards for indoor and outdoor residential use, commercial, industrial, and institutional water use for landscape irrigation with dedicated meters, and water loss in the water distribution system. The current residential indoor water use standard is set at 55 gallons per person per day until January 2025; however, the standard will become stricter over time, decreasing to 50 gallons per person per day in January 2030. The DWR is proposing even stricter indoor standards, starting at 55 gallons per person per day by 2023, declining to 47 gallons per day by 2025, and 42 gallons per day by 2030 and beyond. The standard for commercial, industrial, and institutional outdoor irrigation of landscape areas with dedicated irrigation meters is still under development by DWR. The legislation also includes additional requirements for UWMP preparation.

Governor's 2021 Drought Declaration

Governor Gavin Newsom declared a drought state of emergency on April 21, 2021, and asked State agencies to partner with local water districts and utilities to make Californians aware of drought conditions and to encourage a reduction in water usage by promoting the DWR's Save Our Water Campaign and other water conservation programs. The proclamation also included measures to be implemented by the DWR, SWRCB, the Department of Fish and Wildlife, and the Department of Food and Agriculture that included coordinating State and local actions to address issues stemming from continued dry conditions.

The governor issued subsequent drought emergency proclamations on May 10, July 8, and October 19 of 2021, and again on March 28 of 2022. The July 8, 2021 proclamation called on Californians to voluntarily reduce water use by 15 percent from their 2020 levels. The October 19, 2021 proclamation required local water suppliers to implement water shortage contingency plans that are responsive to local conditions and prepare for the possibility of a third dry year. The March 28, 2022 proclamation required that by May 25, 2022, the SWRCB must consider adopting emergency regulations defining non-functional turf[8] and banning irrigation of non-functional turf in the commercial, industrial, and institutional sectors. The proclamation also required that by May 25, 2022, SWRCB must consider adopting emergency regulations to implement the shortage response actions specified in the Urban Water Management Plan (UWMP) for

[8] Non-functional turf is turf that is ornamental and not otherwise used for human recreation purposes such as school fields, sports fields, and parks.

a water shortage level of up to twenty percent. The SWRCB tracks and reports monthly on the state's progress toward achieving a 15 percent reduction in statewide urban water use compared to 2020 use.

State Water Resources Control Board 2022 Water Conservation Regulations

On January 4, 2022, the SWRCB adopted an emergency regulation, which remains in effect until January 18, 2023 unless the SWRCB acts to end, modify, or readopt it. The emergency regulation requirements include:

- Turning off decorative water fountains.
- Turning off/pausing irrigation systems when it rains and for two days after rain.
- Using an automatic shut-off nozzle on water hoses.
- Using a broom, not water, to clean sidewalks and driveways.
- Giving trees what they need and avoiding overwatering.

On May 24, 2022, the SWRCB adopted a second emergency regulation. The emergency regulations went into effect on June 10, 2022 and remains in effect for one year unless SWRCB modifies, readopts, or ends it. The emergency regulation requirements include:

- Urban water suppliers must submit preliminary supply and demand assessments to the Department of Water Resources by June 1, 2022.
- Urban water suppliers must implement all conservation actions in their locally adopted plans meant to address at least a water shortage level of 10 to 20 percent (Level 2) by June 10, 2022.
- Owners and managers of commercial, industrial, and institutional properties must not use potable water for irrigating non-functional turf.

Regional Regulations

Cal Water 2020 Urban Water Management Plan

The California Water Service Company, Mid-Peninsula District (Cal Water), adopted its current 2020 UWMP in June 2021 in compliance with the Urban Water Management Planning Act, the Water Conservation Act of 2009, and sections 10610 to 10656 of the California Water Code. All urban water suppliers are required to prepare, adopt, and file a UWMP with DWR every five years. The 2020 UWMP describes water demands, water supply sources, and supply reliability for its service area in five-year increments for normal years, single dry years, and multiple dry years. The UWMP also provides a water shortage contingency plan, demand management measures to increase water use efficiency, and current and planned water conservation efforts.

Local Regulations

San Carlos 2030 General Plan

The San Carlos 2030 General Plan includes goals, policies, and implementing actions to ensure an adequate water supply and infrastructure in Chapter 6, *Environmental Management Element*. The policies relevant to water supplies and demands are listed below in Table 4.13-1, *City of San Carlos 2030 General Plan Policies Relevant to Water Supplies and Demand*.

TABLE 4.13-1 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO WATER SUPPLIES AND DEMAND

Policy Number	Policy Text
Chapter 6, Environmental Management (EM) Element	
Policy EM-5.3	Promote the conservation and efficient use of water in new and existing residences and by commercial and industrial consumers.
Policy EM-5.4	Encourage the use of drought-tolerant plants and efficient watering techniques for all City landscaping.
Policy EM-5.5	Recycled water distribution system (purple pipe) should be used for landscaping and other non-potable water uses for residential, commercial and industrial customers, where technically and financially feasible.
Policy EM-5.6	Continue public education programs on water issues working with water service providers, local non-profits and other environmental organizations, including conservation measures and BMPs for residents, businesses, contractors and City employees.
Policy EM-5.8	Work with water service providers to provide high quality domestic water.

Source: City of San Carlos, 2009, *2030 General Plan*.

San Carlos Municipal Code

The SCMC contains provisions pertaining to water service and usage, as explained in the following paragraphs:

- Chapter 15.04.125, *Title 24, Part 11, California Green Building Standards Code (CALGreen)*. This chapter establishes CALGreen's energy and water efficiency mandatory measures for new residential construction.
- Chapter 18.18.080, *Water Efficient Landscaping*. This chapter establishes water-efficient landscape and irrigation guidelines to promote the conservation and efficient use of water and minimize runoff with the use of automatic control systems.

The SCMC requires the estimated total water use of a proposed landscaping not to exceed the maximum applied water allowance.

Existing Conditions

Water Supply Sources

Cal Water is a subsidiary of the California Water Service Group and provides water to communities throughout California, organized into districts through the state. The Cal Water Bayshore District is divided into the Mid-Peninsula District (MPD) and the South San Francisco District. The MPD serves central San Mateo County and the communities of San Carlos, San Mateo, parts of unincorporated Redwood City, and adjacent unincorporated portions of San Mateo County, including The Highlands and Palomar Park. MPD purchases all its water from the San Francisco Regional Water System (RWS), which is operated by the San Francisco Public Utilities Commission (SFPUC). Approximately 85 percent of the water supply to the RWS originates in the Hetch Hetchy watershed. The remaining 15 percent of the water supply originates locally

in the Alameda and Peninsula watershed and is stored in six reservoirs in Alameda and San Mateo Counties.[9]

The MPD operates two Public Water Systems (PWS): the San Mateo PWS and the San Carlos PWS. The San Carlos water system includes 17 storage tanks, 23 pressure zones, and 24 booster pumps.[10] The MPD supplied 3,658 acre-feet of water to the San Carlos PWS in 2020 via 10,450 municipal connections. Most of the MPD's service connections are residential customers that account for 72 percent of the total water use. All the water supplied by MPD is from surface water. There currently is no use of groundwater or recycled water and these sources are not anticipated to be available for future use through 2045.[11]

Water Supply Assurance

The SFPUC has a perpetual commitment (Supply Assurance) to deliver 184 million gallons per day (mgd) to its 24 wholesale customers. The Supply Assurance is allocated through Individual Service Guarantees (ISGs), which represent each wholesale customer's allocation. Cal Water's total ISG for all three districts in San Mateo County is 35.68 mgd.[12]

Water Treatment

Water from Hetch Hetchy Reservoir is treated at the Tesla Treatment Facility near the City of Tracy. The facility uses ultraviolet light for disinfection and has the capacity to treat 315 mgd. All RWS water from sources other than Hetch Hetchy Reservoir is treated at one of two facilities:

- The Sunol Valley Water Treatment Plant (SVWTP) east of the City of Fremont has a 160 mgd capacity and treats water from the San Antonio and Calaveras Reservoirs.
- The Harry Tracy Water Treatment Plant (HTWTP) near the City of Millbrae has a 180 mgd capacity and treats water from Crystal Springs Reservoir and San Andreas Reservoir.[13]

Water Supply and Demand

Water supply and demand was determined in the 2020 UWMP for the MPD for normal years, a single-dry year, and multiple-dry years. Water demand forecasts for 2025 through 2045 were based on population projections prepared by the Association of Bay Area Governments (ABAG).[14] The 2020 water demand for MPD was 14,563 acre-feet.

[9] California Water Service, June 2021, *2020 Urban Water Management Plan, Mid-Peninsula District*, https://www.calwater.com/docs/uwmp2020/MPS_2020_UWMP_FINAL.pdf, accessed August 29, 2022.

[10] California Water Service, 2022, District Information, Bayshore (Bay Area Region), https://www.calwater.com/district-information/?dist=bay, accessed August 29, 2022.

[11] California Water Service, June 2021, *2020 Urban Water Management Plan, Mid-Peninsula District*, https://www.calwater.com/docs/uwmp2020/MPS_2020_UWMP_FINAL.pdf, accessed August 29, 2022.

[12] California Water Service, June 2021, *2020 Urban Water Management Plan, Mid-Peninsula District*, https://www.calwater.com/docs/uwmp2020/MPS_2020_UWMP_FINAL.pdf, accessed August 29, 2022.

[13] California Water Service, June 2021, *2020 Urban Water Management Plan, Mid-Peninsula District*, https://www.calwater.com/docs/uwmp2020/MPS_2020_UWMP_FINAL.pdf, accessed August 29, 2022.

[14] California Water Service, June 2021, *2020 Urban Water Management Plan, Mid-Peninsula District*, https://www.calwater.com/docs/uwmp2020/MPS_2020_UWMP_FINAL.pdf, accessed August 29, 2022.

As shown below in Table 4.13-2, *Projected Normal, Dry, and Multiple-Dry Years Supply and Demand Comparisons (afy),* Cal Water forecasts that it will have adequate supplies to meet demands in normal years through 2045. However, demands are expected to exceed supplies for single-dry or multiple-dry years through 2045. Table 4.13-2 provides the projected water demand and water supply comparison for the MPD for normal, single-dry, and multiple-dry years.

TABLE 4.13-2 PROJECTED NORMAL, DRY, AND MULTIPLE-DRY YEARS SUPPLY AND DEMAND COMPARISONS (AFY)

	2025	2030	2035	2040	2045
Normal Year					
Supply Totals	14,418	14,530	14,786	14,977	15,279
Demand Totals	14,418	14,530	14,786	14,977	15,279
Difference	*0*	*0*	*0*	*0*	*0*
Single-Dry Year					
Supply Totals	9,470	9,541	9.708	9,676	8,458
Demand Totals	14,797	14,908	15,168	15,359	15,662
Difference	*(5,327)*	*(5,367)*	*(5,460)*	*(5,683)*	*(7,204)*
Multiple-Dry Year					
First Year					
Supply Totals	9,170	9,146	9,186	9,296	8,081
Demand Totals	15,031	15,143	15,405	15,595	15,900
Difference	*(5,862)*	*(5,996)*	*(6,219)*	*(6,299)*	*(7,819)*
Second Year and Third Year					
Supply Totals	7,863	7,847	7,871	7,975	8,081
Demand Totals	15,031	15,143	15,405	15,595	15,900
Difference	*(7,168)*	*(7,295)*	*(7,534)*	*(7,620)*	*(7,819)*
Fourth Year					
Supply Totals	7,863	7,847	7,871	7,036	6,868
Demand Totals	15,031	15,143	15,405	15,595	15,900
Difference	*(7,168)*	*(7,295)*	*(7,534)*	*(8,559)*	*(9,031)*
Fifth Year					
Supply Totals	7,863	7,847	7,216	7,036	6,868
Demand Totals	15,031	15,143	15,405	15,595	15,900
Difference	*(7,168)*	*(7,295)*	*(8,189)*	*(8,559)*	*(9,031)*

Note: Volumes provided in acre-feet per year (AFY).
Source: California Water Service Company, 2021, *2020 Urban Water Management Plan, Mid-Peninsula District*.

Table 4.13-2 shows water supply deficits in future single- and multiple-dry years but represents a worst-case scenario. This assumes that the Bay-Delta Plan Amendment is implemented without the SFPUC and SWRCB reaching a Voluntary Agreement and does not account for implementation of SFPUC's Alternative Water Supply Planning Program (AWSP). Without the Bay-Delta Plan Amendment, SFPUC would be able to supply 100 percent of projected RWS demands in all years through 2045, except for the fourth and fifth consecutive dry year in 2045, during which 90 percent of the project RWS demands would be met. Strategies to address dry year supply shortfalls include:

- Calaveras Dam Replacement Project
- Alameda Creek Recapture Project
- Lower Crystal Springs Dam Improvements
- Regional Groundwater Storage and Recovery Project
- 2 MGD Dry-Year Water Transfer between the Modesto Irrigation District, the Oakdale Irrigation District and the SFPUC

The SFPUC is also accelerating efforts to acquire additional water supplies through the AWSP, including projects to purify wastewater from Silicon Valley Clean Water and/or the City of San Mateo that would then be transmitted to Crystal Springs Reservoir and treated again at Harry Tracy Water Treatment Plant. Cal Water also has its own comprehensive water conservation program that will continue to reduce per-capita usage and therefore demands on critical water sources.

Water Shortage Contingency Plan

The MPD Water Shortage Contingency Plan (WSCP) is a company-wide plan for responding to long-term droughts that may be of several months to several years duration, as well as to sudden events including natural disasters, mechanical failures, or chemical contamination. The WSCP prescribes actions in response to six stages of drought and is provided in the 2020 UWMP.

4.13.1.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant impact related to water supply if it would:

1. Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.
2. 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.
3. In combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to water supply.

4.13.1.3 IMPACT DISCUSSION

UTIL-1	**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.**

The water demand for the proposed project was calculated based on the wastewater generation rate for hotels, as provided in the City's Sewer Collection System Master Plan, of 150 gallons per day (gpd) per room.[15] Water demand was assumed to be 100 percent of the wastewater generation rate. This is a conservative assumption because the City's Sewer Collection System Master Plan was prepared in January

[15] City of San Carlos, 2013, *Sewer Collection System Master Plan*.

2013 and, since that time, the sewer generation rates, and thus the water demand rates, have decreased significantly due to the implementation of water conservation efforts and low-flow plumbing fixtures.

Assuming the proposed project's indoor water demand is equal to the wastewater generation rate and a conservative 100 percent hotel room occupancy rate, the indoor water demand is estimated to be 28,200 gpd or 31.6 acre-feet per year (afy). The outdoor water demand was estimated using the State's MWELO water budget worksheet for non-residential landscapes.[16] For 11,427 square-feet (SF) of on-site landscaping and 960 SF of landscaping for road improvements along Industrial Road, the outdoor water demand is estimated as 344 gpd or 0.4 afy. Therefore, the total water demand for the proposed project is 32.0 afy (i.e., indoor plus outdoor water demand). Due to the site being vacant, the proposed project water demand would represent the net increase in water usage. Table 4.13-3, *Project Water Demand*, summarizes the proposed project water demand.

TABLE 4.13-3 PROJECT WATER DEMAND

Type	Size	Rate of Water Demand (gpd)	Total Water Demand (afy)
Indoor Water Use	188 rooms	150 gpd	31.6
Outdoor Water Use [a]	On-site Landscaping 11,427 SF Off-site Landscaping 960 SF	MWELO calculations [a]	0.4
Total Water Use			32.0

Notes: afy: acre-feet per year; gpd: gallons per day; SF: square feet
a Preliminary estimate of outdoor water use for the proposed project based on DWR Water Budget spreadsheet for new and rehabilitated non-residential landscapes assuming 11,427 SF of new landscaping (on-site) and 960 SF off-site landscaping. A landscape and irrigation plan with detailed calculations will be submitted to the City for review and approval prior to the start of construction.
Source: PlaceWorks, 2022.

The proposed project would result in a water demand of 32.0 afy, which is approximately 0.2 percent of the 2020 MPD water demand of 14,563 acre-feet. The current population of San Carlos, as of January 1, 2022 was 29,837, which is a decrease of 1.3 percent from the previous year.[17] The 2020 UWMP projects a population increase of 7.5 percent in the Cal Water service area by 2040, whereas the Association of Bay Area Governments (ABAG) projects a population increase of only 6 percent by 2040.[18] Therefore, the proposed project is well within the forecast population growth rate for San Carlos that was assumed in the 2020 UWMP. In addition, the proposed project would be required to file a commercial service application and obtain a will serve letter from Cal Water, stating that the water utility has available water to meet the project water demands.

Although water supply within the MPD service area is projected to fall short of water demand for a single-dry year and multiple-dry years, Cal Water anticipates meeting water demands in future dry years by implementing its WSCP. In addition, Cal Water has developed a Conservation Master Plan, which provides

[16] California Department of Water Resources, 2020. Water Budget Calculators, https://data.cnra.ca.gov/dataset/water-budget-calculators, accessed on September 12, 2022.

[17] California Department of Finance, 2022. Population Estimates for Cities, Counties, and the State. https://dof.ca.gov/forecasting/demographics/estimates-e1/ accessed on November 5, 2022.

[18] Association of Bay Area Governments ABAG), 2022. Projections 2040 by Jurisdiction. Accessed at http://projections.planbayarea.org/ on November 5, 2022.

the blueprint for education, assistance, and incentives to help customers always use water efficiently.[19] This includes a plumbing fixture replacement program, irrigation equipment and turf replacement rebates, free evaluation of customer's irrigation systems, and water savings calculators and tips. With the implementation of these programs and the current legislation to reduce residential indoor water use to 50 gallons per person by 2030, per capita water use in the overall service area will continue to decrease despite the increase in population. In addition, the proposed project would install low-flow plumbing fixtures and low water use laundry and restaurant equipment in accordance with the latest CALGreen non-residential building standards. Compliance with these programs indicates that there is sufficient water available for the proposed project and impacts would be considered *less than significant*.

Significance without Mitigation: Less than significant.

UTIL-2 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.

The proposed project would connect to an existing 12-inch water main beneath Industrial Road, which is owned, operated, and maintained by Cal Water. The Harry Tracy Water Treatment Plant filters and disinfects water supplied from Crystal Springs Reservoir and San Andreas Reservoir before it is delivered to customers in San Carlos. The treatment process includes ozonation, coagulation, flocculation, filtration, disinfection, fluoridation, corrosion control treatment, and chloramination. Major upgrades to the treatment plant were completed in 2015. With completion of the recent improvements, the treatment plant has a sustainable capacity of 140 mgd,[20] which is equivalent to 156,780 afy. This substantially exceeds the 2020 and 2025 water demand for the MPD service area of 14,563 afy and 14,418 afy, respectively. And as described in impact discussion UTIL-1, the proposed project would result in a water demand of 32.0 afy, which is approximately 0.2 percent of the 2025 MPD water demand and well within the growth projections of Cal Water's UWMP. Therefore, no existing or new water facilities or expansion of existing facilities would be required, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

UTIL-3 The proposed project would not result in significant cumulative impacts regarding water supply, in combination with past, present, and reasonably foreseeable projects.

The area considered for cumulative impacts is MPD's public water systems service area, which includes the cities of San Carlos and San Mateo. The population of MPD's service area is forecast to increase from

[19] California Water Service, 2021, *Conservation Master Plan 2021-2025, Mid-Peninsula District*.

[20] California Water Service, 2021, *2020 Urban Water Management Plan, Mid-Peninsula District*, https://www.calwater.com/docs/uwmp2020/MPS_2020_UWMP_FINAL.pdf, accessed September 12, 2022.

137,486 in 2020 to 147,802 in 2040, an increase of 10,316 or about 7.5 percent.[21] This is consistent with the future projected growth rate within the City of San Carlos, which is expected to increase by 5,100 residents by the year 2040. The projected increases in population have been accounted for in the 2020 UWMP with respect to water demand. Although water supply within the MPD is projected to fall short of water demand for a single-dry year and multiple-dry years, Cal Water anticipates meeting water demands in future dry years by implementing its WSCP.

Other projects within San Carlos and the MPD service area would increase water demands in the service area. However, all new development would be required to conserve water use and implement water efficiency measures, as per the CALGreen Building Code and the MWELO outdoor irrigation requirements. In addition, future development would be required to pay water service connection fees to Cal Water, which include a meter charge, service line and installation charge, water capacity charge, and water demand offset charge.[22] These charges are used to offset the costs of system maintenance and capital upgrades to support new development within the MPD's service area. In addition, water supply assessments (WSAs) would be required for large development projects to ensure adequate water supply for new development.

Overall, cumulative water demands would not exceed nor require building new water treatment facilities or expanding existing facilities beyond what is currently planned. Water supply deficits in dry years would be met by implementing the WSCP and other water conservative efforts. Existing regulations would result in a reduction in per capita water use over time, which would ensure that cumulative impacts with respect to water supply would be *less than significant*.

Significance without Mitigation: Less than significant.

4.13.2 WASTEWATER

4.13.2.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

Clean Water Act

The Clean Water Act (CWA) regulates the discharge of pollutants into watersheds throughout the nation. Under the CWA, the USEPA implements pollution control programs, sets wastewater standards for industry and municipalities, and makes it unlawful to discharge pollutants from a point source into any navigable waters without obtaining a permit. Point sources include any conveyances, such as pipes and man-made drainage channels, from which pollutants may be discharged.

[21] California Water Service, 2021, *2020 Urban Water Management Plan*, https://www.calwater.com/docs/uwmp2020/MPS_2020_UWMP_FINAL.pdf, accessed September 12, 2022.

[22] California Water Service, 2018, Water Service Ordinance 103, Attachment A. Schedule of Rates and Fees.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including discharges from municipal wastewater treatment facilities to waters of the United States and wastewater discharges from industrial and commercial sources, which are covered by the National Pretreatment Program. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; set prohibitions on discharges not specifically allowed under the permit; and establish provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

State Regulations

State Water Resources Control Board

On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 mile of sewer pipe. 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, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sewer System Management Plan (SSMP). The General Waste Discharge Requirement also requires that storm sewer overflows be reported to the SWRCB using an online reporting system. The SWRCB has delegated authority to the nine RWQCBs to enforce these requirements within their regions.

The San Francisco Bay RWQCB (Region 2) issues NPDES permits for wastewater treatment plants that serve San Carlos. NPDES permits allow the RWQCB to collect information on where the waste is disposed, what type of waste is being disposed, and what entity is depositing the wastes. The RWQCB is also charged with conducting inspections of permitted discharges and monitoring permit compliance.

Local Regulations

San Carlos 2030 General Plan

The San Carlos 2030 General Plan includes goals, policies, and actions relevant to wastewater conveyance and treatment in Chapter 8, *Environmental Management Element*. The policies applicable to the proposed project are listed below in Table 4.13-4, *City of San Carlos 2030 General Plan Policies Relevant to Wastewater*.

TABLE 4.13-4 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO WASTEWATER

Policy Number	Policy Text
Chapter 8, Environmental Management (EM) Element	
Policy EM-5.1	Reduce the discharge of toxic materials into the city's sanitary sewer and stormwater collection system by promoting the use of Best Management Practices (BMPs).
Policy EM-5.9	Sewer service may be extended outside the city limit only as required to protect public health due to failing septic systems in accordance with the following policies: ▪ Extension of sewer service would be denied if there is insufficient capacity in the wastewater collection system. ▪ No change to the land use would occur. ▪ The extension of sewer service could not be used to enable further subdivision. ▪ The property owner would be required to annex as such time as a complete consolidation of properties could be annexed. ▪ The property owner would be required to complete all improvements necessary to meet City building and engineering standards. ▪ Applicant to assure payment of all sewer connection, plan checking and inspection fees.

Source: City of San Carlos, 2009, *2030 General Plan*.

San Carlos Municipal Code

The SCMC includes various provisions pertaining to wastewater issues, most of which are found in Title 13, *Public Services*. Chapters pertaining to wastewater issues are:

- Chapter 13.04, *Sewer Connections*. Connection permits are required for all projects that connect to any City sewer and sewer capacity charges are imposed on all new development and redevelopment projects to cover costs for maintaining the City's sewer system infrastructure. The sewer capacity charge is based on the volume of estimated wastewater discharge from each new or expanded connection.
- Chapter 13.05, *Sewer Lateral Inspection, Repair, and/or Replacement*. This chapter establishes requirements for property owners to inspect, maintain, repair, and/or replace sewer laterals, sewer relief valves, and sewer backwater valves on each property that is connected to the City's sewer system.
- Chapter 13.08, *Sewer Use*. This chapter establishes standards and conditions, as well as charges and fees, for the use of the sewer system. The chapter includes protection of the sewer system from damage; prohibitions on discharges; control of fats, oils, and grease; and regulation of encroachments into easements; and wastewater effluent limitations.

City of San Carlos Design Guidelines

The City's Design Guidelines include standards for the City's sewer collection system in Section 7 of this document. These sewer guidelines apply to the construction, repair, and relocation of sanitary sewer facilities in the city, including mains, laterals, services, and all related appurtenances. Sewer Standards provide guidelines for the design, construction, and abandonment of sewer utility projects. The guidelines specify minimum acceptable design criteria. More stringent requirements based on specific project

conditions may be imposed at the discretion of the Department of Public Works and Engineering Division.[23]

City of San Carlos Sanitary Sewer Management Plan

The goal of the Sanitary Sewer Management Plan, prepared by the Department of Public Works, is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. The plan aims to reduce and prevent sanitary sewer overflows and mitigate any overflows that do occur.[24]

Silicon Valley Clean Water Wastewater Treatment Plant NPDES Permit

Wastewater from the City's sewer system is conveyed to the Silicon Valley Clean Water (SVCW) wastewater treatment plant located in the Redwood Shores area of Redwood City. The NPDES permit for SVCW was issued by the San Francisco RWQCB (Order No. R2-2018-0005; NPDES No. CA0038369). It was adopted on April 1, 2018 and will expire on March 31, 2023. The permit includes discharge prohibitions, effluent limitations and discharge specifications, receiving water limitations, monitoring and reporting requirements, and a pollution minimization program.[25]

Existing Conditions

Wastewater Collection

The City of San Carlos owns and operates its sewer system, consisting of approximately 104 miles of sewer pipelines, ranging in size from 5 to 36 inches, and six sewer lift stations. The average flow from the city to the SVCW treatment plan is about 2 million gallons per day. The primary material is vitrified clay pipe, with most of the system constructed in the 1940s and 1950s. Plastic pipe is used for newer sewer construction and rehabilitation. The collection system also includes approximately 11,000 private sewer laterals.[26] The proposed project would connect to the existing 27-inch sewer main beneath Industrial Road.[27]

Wastewater Treatment

Wastewater from San Carlos is treated at the SVCW treatment plant in the City of Redwood City. The treatment plant collects and treats wastewater from over 200,000 residents and businesses in the cities of San Carlos, Belmont, Redwood City, Menlo Park, Atherton, Portola Valley, areas of East Palo Alto and

[23] City of San Carlos, updated April 30, 2021, *Sanitary Sewer Management Plan*, https://www.cityofsancarlos.org/home/showpublisheddocument/850/637565993327530000, accessed September 20, 2022.

[24] City of San Carlos, updated April 30, 2021, *Sanitary Sewer Management Plan*, https://www.cityofsancarlos.org/home/showpublisheddocument/850/637565993327530000, accessed September 20, 2022.

[25] San Francisco Bay Regional Water Quality Control Board, February 2018, Order No. R2-2018-0005 - NPDES No. CA0038369, https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2018/February/5b_final_to.pdf, accessed September 20, 2022.

[26] City of San Carlos, 2021, The City of San Carlos Wastewater System, https://www.cityofsancarlos.org/home/showpublisheddocument/848/636571580313500000, accessed on September 20, 2022.

[27] SMP Engineers, 2021, Sanitary Sewer Analysis Report for Proposed Development, Hotel Indigo 501 Industrial Road, San Carlos, CA 94070.

Woodside, and parts of unincorporated San Mateo and Santa Clara counties. The SVCW treatment plant has a permitted operating capacity of 29 mgd average dry weather flow, and a design capacity of 71 mgd peak wet weather flow.[28] The City of San Carlos contributes approximately 2 million gallons/day.[29] Treated effluent from the SVCW facility is discharged to a deep-water outfall in San Francisco Bay. The Mid-Peninsula District does not currently use recycled water due to low potential irrigation demand and high cost.[30]

4.13.2.2 STANDARDS OF SIGNFICANCE

The proposed project would have a significant impact related to wastewater service if it would:

4. Require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects.
5. Result in a determination by the wastewater treatment provider which serves or may serve the proposed project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
6. In combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to wastewater facilities.

4.13.2.3 IMPACT DISCUSSION

UTIL-4	**The proposed project would not require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects.**

Wastewater generated by the proposed project would be collected by the City of San Carlos sanitary sewer system and conveyed to the SVCW treatment plant for treatment. The proposed project includes the construction of an internal network of 6- and 8-inch sewers that would collect wastewater from the proposed hotel project. The on-site sewer infrastructure would be designed and constructed in compliance with City standards and would tie in to the City's existing 27-inch sanitary sewer main that is beneath Industrial Road.

[28] City of San Carlos, 2021, The City of San Carlos Wastewater System, https://www.cityofsancarlos.org/home/showpublisheddocument/848/636571580313500000, accessed on September 20, 2022.

[29] San Francisco Regional Water Quality Control Board, 2018, NPDES Permit for Silicon Valley Clean Water Wastewater Treatment Plant, https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2018/February/5b_final_to.pdf, accessed September 20, 2022.

[30] California Water Service, June 2021, *2020 Urban Water Management Plan, Mid-Peninsula District*, https://www.calwater.com/docs/uwmp2020/MPS_2020_UWMP_FINAL.pdf, accessed September 20, 2022.

A sewer analysis was prepared by SMP Engineers to analyze the impact of the proposed project on the capacity of the existing 27-inch sewer main.[31] The sewer analysis states that the existing system in the project area is not identified as a problem area in need of upgrades by the City's Sewer Collection System Master Plan.[32] Sewer pipes with a depth to flow ratio exceeding two-thirds the pipe diameter were considered to be at capacity and needing upgrades. [33]

The average wastewater demand for the proposed project was calculated to be 150 gpd per room, based on generation rates in the City's Sewer Collection System Master Plan. At 188 rooms, this results in an average wastewater flow rate of 28,200 gpd. Using a peaking factor of 3, the peak flow rate is estimated to be 84,600 gpd. As previously noted, this is a conservative assumption because the City's Sewer Collection System Master Plan was prepared in January 2013 and, since that time, the sewer generation rates have decreased significantly due to the implementation of water conservation efforts and low-flow plumbing fixtures.

The highest record peak flow of 4.0 million gallons/day during the rainy season from the flow monitoring study downstream of the proposed project in the City's 27-inch sewer main beneath Industrial Road was conservatively used for the sewer analysis.[34]

The pre-development and post-development wet weather peak flows were evaluated and compared to the capacity of the 27-inch sewer main beneath Industrial Road. The increase in wastewater flows from the proposed project was added to the existing wastewater flows in the 27-inch sewer main. The results are summarized in Table 4.13-5, *Sewer Main Capacity – Industrial Road*.

TABLE 4.13-5 SEWER MAIN CAPACITY – INDUSTRIAL ROAD

Condition	Wet Weather Peak Flow (cfs)	27-Inch Pipe Fullness (%)
Pre-Development Flow	6.189	45%
Post-Development Flow	6.305	46%

Source: SMP Engineers, 2021, *Sanitary Sewer Analysis Report for Proposed Development, Hotel Indigo 501 Industrial Road, San Carlos, CA 94070.*

The results indicate that the increase in peak wet weather flow rates due to the proposed project is 0.12 cfs, which is less than two percent of the existing sewer peak flow of 6.189 cfs. The depth of flow in the 27-inch sewer main would only increase by one percent with development of the proposed project (i.e., from 45 to 46 percent pipe fullness) and the depth of flow would not exceed two-thirds of the capacity of the pipe. Therefore, no additional sewer infrastructure would be required.

[31] SMP Engineers, 2021*, Sanitary Sewer Analysis Report for Proposed Development, Hotel Indigo 501 Industrial Road, San Carlos, CA 94070.*

[32] SMP Engineers, 2021*, Sanitary Sewer Analysis Report for Proposed Development, Hotel Indigo 501 Industrial Road, San Carlos, CA 94070.*

[33] SMP Engineers, 2021*, Sanitary Sewer Analysis Report for Proposed Development, Hotel Indigo 501 Industrial Road, San Carlos, CA 94070.*

[34] SMP Engineers, 2021*, Sanitary Sewer Analysis Report for Proposed Development, Hotel Indigo 501 Industrial Road, San Carlos, CA 94070.*

The SVCW treatment plant has an average daily treatment capacity of up to 29 mgd and a peak wet weather capacity of 71 mgd. From October 2012 through August 2017, the plant treated a daily average of 13.5 mgd and a maximum instantaneous flow of 50 mgd.[35] Therefore, there is approximately 15.5 mgd of average daily residual capacity at the treatment plant. The proposed project would generate approximately 28,200 gallons of wastewater per day (188 hotel rooms at 150 gpd/room), which is less than 0.2 percent of the residual capacity of the treatment plant. Therefore, the SVCW treatment plant has sufficient capacity to treat the wastewater generated by the proposed project.

In addition, the proposed project would need to abide with the SCMC and CALGreen Building Code, which include low flow plumbing fixtures and water conservation policies that reduce water usage and wastewater generation. The proposed project would be required to pay sewer connection and capacity fees prior to the issuance of building permits, which are used to cover upgrades and maintenance of the City's existing sewer infrastructure. Therefore, development of the proposed project would not require construction of new sewer infrastructure or expanded wastewater treatment facilities and there would be *less-than-significant* impacts.

Significance without Mitigation: Less than significant.

UTIL-5	**The proposed project would not result in a determination by the wastewater treatment provider which serves or may serve the proposed project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.**

As described under impact discussion UTIL-4, the SVCW treatment plant is currently operating with a residual capacity of about 15.5 mgd and the proposed project would generate approximately 28,200 gpd of wastewater. Therefore, wastewater generated by the proposed project would not exceed the capacity of the treatment plant and would not result in a determination by the wastewater treatment provider that they do not have adequate capacity to accommodate the proposed project in addition to their existing commitments.

Furthermore, the proposed project would be required to comply with CALGreen, which would result in a reduction in the amount of wastewater generated. Accordingly, implementation of the proposed project would result in *less-than-significant* impacts.

Significance without Mitigation: Less than significant.

[35] San Francisco Bay Regional Water Quality Control Board, 2018, Order No. R2-2018-0005 - NPDES No. CA0038369, https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2018/February/5b_final_to.pdf, accessed September 20, 2022.

UTIL-6	**The proposed project would not result in cumulative wastewater facilities impacts, in combination with past, present, and reasonably foreseeable projects.**

This section analyzes potential impacts related to wastewater that could occur from implementation of the proposed project in combination with other reasonably foreseeable projects in the surrounding area. The geographic scope of this analysis is SVCW treatment plant's service area. As described under impact discussion UTIL-4, there is currently 15.5 mgd of daily residual capacity at the treatment plant. The proposed project would generate approximately 28,200 gpd, which accounts for less than 0.2 percent of the residual capacity. Although other projects in SVCW's service area would generate increased wastewater, there should be sufficient capacity at the treatment plant to serve the entire service area.

The California Department of Finance predicts a 5 percent increase in the population of San Mateo County by 2040.[36] Assuming that there would be a similar 5 percent population increase in SVCW's service area of 220,000, this would result in a population increase to 231,000 by 2040. This would result in an additional wastewater demand of approximately 613,400 gallons/day, which is still well below the current residual capacity of the treatment plant of 15.5 mgd.[37] Therefore, there is sufficient wastewater treatment capacity in the region for the increased wastewater generation in SVCW's service area.[38] Regional growth would not require SVCW to build new or expand existing wastewater treatment facilities. Therefore, the cumulative impacts of the proposed project on wastewater infrastructure would be *less than significant.*

Significance without Mitigation: Less than significant.

4.13.3 SOLID WASTE

4.13.3.1 ENVIRONMENTAL SETTING

Regulatory Setting

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, *Criteria for Municipal Solid Waste Landfills)* 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.

[36] California Department of Finance, 2021, Population Projections, https://www.dof.ca.gov/Forecasting/Demographics/projections/, accessed September 21, 2022.

[37] An increase of 11,000 people in the service area / 2.69 persons per dwelling unit x 150 gpd per dwelling unit = 613,400 gallons per day (approximately).

[38] California Water Service, 2021, *2020 Urban Water Management Plan, Mid-Peninsula District*, https://www.calwater.com/docs/uwmp2021/MPS_2020_UWMP_Public_Draft-2021-05-07.pdf, accessed September 21, 2022.

State Regulations

Integrated Waste Management Act

California's Integrated Waste Management Act of 1989 (AB 939) requires that cities and counties divert 50 percent of all solid waste from landfills as of January 1, 2000 through source reduction, recycling, and composting. 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), a department within the California Natural Resources Agency. AB 939 also establishes a goal for all California counties to provide at least 15 years of ongoing landfill capacity.

In 2007, SB 1016 amended AB 939 to establish a per capita disposal measurement system. The per capita disposal measurement system is calculated as a jurisdiction's reported total disposal of solid waste divided by a jurisdiction's population. CalRecycle sets a target per capita disposal rate for each jurisdiction. Each jurisdiction must submit an annual report to CalRecycle with an update of its progress in implementing diversion programs and its current per capita disposal rate. Target disposal rates for San Carlos for 2021 were 7.5 pounds per person per day (ppd) for residents and 14.4 ppd for employees; actual disposal rates were less than the target goals at 6.3 ppd for residents and 11.1 ppd for employees.[39]

California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act (AB 1327) requires development projects to be set aside areas for collecting and loading recyclable materials. This act required CalRecycle to develop a model ordinance for adoption by any local agency to provide adequate areas for the collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model, or an ordinance of their own, that establishes standards, including space allocation, for the collection and loading of recyclable materials.

Mandatory Commercial Recycling Act (AB 341)

Assembly Bill 341 (Chapter 476) increases the statewide waste diversion goal to 75 percent by 2020, and mandates recycling for businesses producing four or more cubic yards of solid waste per week or multi-family residential dwellings of five or more units. AB 341 is designed to reduce greenhouse gas (GHG) emissions in the state by 5 million metric tons of carbon dioxide. In San Mateo County, businesses and property owners can subscribe to composting and recycling services provided by Recology San Mateo County. In San Carlos, businesses and multi-family dwelling with two cubic yards or more of garbage per week must comply with the City's mandatory commercial recycling and organics ordinance.

Mandatory Organics Recycling Act (AB 1826)

AB 1826, which was enacted in 2014, mandates organic waste recycling for businesses and multifamily dwellings with five or more units. Starting January 1, 2020, all generators of 2 cubic yards or more of

[39] CalRecycle, 2019, Disposal Rate Calculator, San Carlos 2021, https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/DisposalRateCalculator, accessed November 2, 2022.

garbage, recycling, and compost combined per week must recycle organic waste. Organic waste includes food scraps, food-soiled paper waste, yard trimmings, and landscape materials. Multi-family dwellings do not need to have food-waste recycling on-site but must recycle yard and landscape materials. Recology San Mateo County offers these services to businesses and residences to comply with the requirements of AB 1826.

California Short-Lived Climate Pollutants Act (Senate Bill 1383)

Senate Bill 1383 set targets to achieve a 50 percent reduction in the statewide disposal of organic waste by 2020 and a 75 percent reduction by 2025. SB 1383 requires all businesses and residents to divert organic materials (including food waste, yard waste, and soiled paper products) from the landfill. The regulation takes effect on January 1, 2022 and will require that organics collection service be provided to all residents and businesses. Also, an edible food recovery program must be established with the goal to increase edible food recovery to 20 percent by 2025.[40]

CALGreen Building Code

The 2022 California Green Building Standards Code (CALGreen) will take effect on January 1, 2023. Section 5.408, *Construction Waste Reduction Disposal and Recycling*, mandates that, in the absence of a more stringent local ordinance, a minimum of 65 percent of non-hazardous construction and demolition debris must be recycled or salvaged. CALGreen requires applicants to submit a waste management plan for on-site sorting of construction debris, which is submitted to the City for approval, or use a waste management company with verifiable documentation. The plan must:

- Identify the materials to be diverted from disposal by recycling, reuse on the project, or salvage for future use or sale.
- Specify if materials will be sorted on-site or mixed for transportation to a diversion facility.
- Identify the diversion facility where the material collected will 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.

Regional Regulations

San Mateo County Environmental Health Division

San Mateo County Environmental Health Division (SMCEHD) is the State-certified Local Enforcement Agency (LEA) for solid waste in San Mateo County. The Solid Waste Program under the SMCEHD ensures that businesses, garbage collection and disposal companies, and residents follow the federal, state, and local standards and permitting requirements for solid waste. Inspectors from the Solid Waste Program issue permits and regulate four transfer/material recovery facilities (MRFs) and one anaerobic digestion

[40] CalRecycle, 2021, SB 1383 Education and Outreach Resources, https://www.calrecycle.ca.gov/organics/slcp/education, accessed November 2, 2022.

facility, as well as one active landfill, Ox Mountain in Half Moon Bay.[41] These facilities are monitored for compliance with State standards for the proper handling and disposal of solid waste. Seventeen closed landfills in different locations throughout the County are also monitored.

San Mateo County Office of Sustainability: Solid Waste Management

San Mateo County Office of Sustainability: Solid Waste Management administers and implements the solid waste management and resource conservation programs and policies throughout the County. The Waste Reduction Program's mission is to advance environmental sustainability by working with residents, businesses, and institutions throughout San Mateo County to encourage environmental stewardship, implement resource conservation programs and policies, and comply with the California Integrated Waste Management Act, as well as AB 341, AB1826, and SB 1383, by meeting the mandated diversion goals.

RethinkWaste (South Bayside Waste Management Authority)

RethinkWaste, also known as the South Bayside Waste Management Authority, is a joint powers authority formed by eleven local jurisdictions (Member Agencies) within San Mateo County, including the City of San Carlos. RethinkWaste owns and manages the Shoreway Environmental Center in San Carlos, which receives all the recyclables, green waste, and garbage collected from the Member Agencies. RethinkWaste also provides oversight and management of service providers that collect, process, recycle, and dispose of materials and educates residents and businesses through waste reduction, recycling, and solid waste programs. South Bay Recycling operates the Shoreway Environmental Center on behalf of RethinkWaste and Recology San Mateo County provides recycle, compost, and garbage collection services for residents and businesses in San Mateo County.

Local Regulations

San Carlos 2030 General Plan

The San Carlos 2030 General Plan includes goals, policies and implementing actions relevant to solid waste in Chapter 6, *Environmental Management Element*. The policies relevant to the proposed project are listed below in Table 4.13-6, *City of San Carlos 2030 General Plan Policies Relevant to Solid Waste Disposal*.

TABLE 4.13-6 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO SOLID WASTE DISPOSAL

Policy Number	Policy Text
Chapter 6, Environmental Management (EM) Element	
Policy EM-12.1	Work with the local waste management authority to increase community diversion of solid waste that meets or exceeds the targeted rate in the Climate Action Plan.
Policy EM-12.2	Minimize City government waste by expanding reduction, recycling and composting programs and practicing reuse.

[41] San Mateo County Health, 2022, Solid Waste Program, https://www.smchealth.org/solidwaste, accessed November 2, 2022.

TABLE 4.13-6 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO SOLID WASTE DISPOSAL

Policy Number	Policy Text
Policy EM-12.3	Encourage the public and private sectors to utilize reusable, returnable, recyclable, environmentally-friendly products and repairable goods through incentives, educational displays and activities, as well as City purchasing policies and practices.

Source: City of San Carlos, 2009, *2030 General Plan*.

San Carlos Municipal Code

The SCMC includes various provisions pertaining to solid waste issues found in Title 8, *Health and Safety*. Chapters pertaining to wastewater issues are:

- Chapter 8.04, *Solid Waste*. This chapter known as the Solid Waste Ordinance contains provisions for solid waste collection and disposal. The chapter requires all residential, commercial, or industrial properties in the City to contract with a City franchisee for the removal and disposal of solid waste generated by the property. The franchisee is authorized to charge all customers a fee for the collection and transport of the solid waste.
- *Chapter 8.05, Recycling and Diversion of Construction and Demolition Debris.* This chapter establishes diversion rates for construction and demolition debris to meet the AB 939 mandates and reduce the amount of solid waste that is landfilled. In general, projects are required to divert at least 60 percent of all generated tonnage. Every project applicant must submit a waste management plan (WMP) to the Department of Planning and Building as part of the building permit process. The WMP shall include: 1) the estimated volume or weight of project construction and demolition debris, by materials type; 2) the maximum volume and weight of these materials that can feasibly be diverted via reuse or recycling; 3) the vendor or facility that will be used to collect or receive the material; and 4) the estimated volume or weight of construction and demolition debris that will be landfilled.
- Chapter 8.24, *Recycling and Collection of Other Wastes*. This chapter regulates the location, height, size, and design of recycling and trash enclosures and containers to provide adequate space for the collection, storage, and loading of recycled materials at each residential, commercial, institutional, and industrial development. Recycling and trash enclosure design guidelines are included in this chapter.
- Chapter 8.25, *Mandatory Commercial and Multifamily Residential Recycling*. The purposed of this chapter is to establish requirements for the collection, recycling, and processing of recyclable and organic materials generated from commercial facilities, multi-family dwellings, and special events. These requirements are intended to assist the City in meeting the recycling and landfill diversion goals and reduce GHG emissions. Multi-family generators must participate in the programs covered by this chapter and segregate recyclable materials from garbage and deposit them in designated containers provided by the solid waste collector. These requirements apply to all commercial or multi-family solid waste customers that generate two cubic yards or more of garbage per week.

Existing Conditions

Solid Waste Collection

Recology San Mateo County provides recycling, compost, and garbage collection in San Carlos and San Mateo County. Recology offers the following for commercial customers: 1) single-stream recycling including metal, plastic, paper, and glass; 2) compost collection, including food scraps, soiled paper products, and landscaping trimmings; and 3) landfill disposal for all other trash and garbage. All waste is transported to the Shoreway Environmental Center in the City of San Carlos, which consists of a transfer station, a materials recovery facility in which recyclable materials are retrieved from the waste stream and shipped to recyclers, and a public recycling facility. The facility also accepts construction and demolition debris. The Shoreway Environmental center has a maximum permitted throughput of 3,000 tons/day.[42]

Waste generation rates in San Carlos in 2021 were 6.3 ppd for residents and 11.1 ppd for employees, which are lower than the CalRecycle target waste generation rates of 7.5 and 14.4 ppd, respectively.

Solid Waste Disposal

South Bay Recycling (SBR) is the contractor hired by RethinkWaste to operate the Shoreway Environmental Center. SBR is responsible for the marketing and selling of recyclable materials to domestic and overseas markets, transporting loads of organic waste to Blossom Valley Organics in Vernalis and Newby Island in San Jose, transporting garbage to the Ox Mountain Landfill in Half Moon Bay, and delivering construction and demolition debris to Zanker Recycling in San Jose.[43]

Ox Mountain Landfill (Corinda Los Trancos Landfill)

Ox Mountain Landfill currently accepts all the solid waste generated by San Mateo County. The Class III landfill is operated by Browning Ferris Industries of California and accepts non-hazardous municipal solid waste as well as construction/demolition debris. It is located on a 2,786-acre site at 12310 San Mateo Road in Half Moon Bay; however, only 173 acres are dedicated to landfill operations. It has a maximum permitted throughput of 3,598 tons/day and a remaining capacity of 22 million tons. The estimated closure date is January 1, 2034. Details regarding permitted capacity, maximum daily throughout, and average daily disposal rates are provided in Table 4.13-7, *Ox Mountain Landfill Capacity*.

[42] California Department of Resources Recovery and Recycling, 2021, Solid Waste Information System, SWIS Facility Detail: Shoreway Environmental Center, https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1575?siteID=3236, accessed November 2, 2022.

[43] RethinkWaste, 2022, Service Providers and Area Map, https://rethinkwaste.org/about/service-area-map-providers/, accessed November 2, 2022.

TABLE 4.13-7 OX MOUNTAIN LANDFILL CAPACITY

Facility and Location	Remaining Capacity (Cubic Yards)	Maximum Permitted Disposal (Tons/Day)	2020 Average Disposal (Tons/Day)[a]	Residual Capacity (Tons/Day)	Estimated Closing Date
Ox Mountain Landfill, Half Moon Bay, San Mateo County	22,180,000	3,598	1,700	1,898	2034

a. Average daily disposal is estimated based on 300 operating days per year, assuming the landfill is open six days per week except certain holidays. Data is based on total 2020 tonnage for this landfill from CalRecycle's Landfill Summary Tonnage Report and SWIS Facility/Site Activity Details.
Source: CalRecycle, 2022. Landfill Tonnage Reports, accessed on November 2, 2022 at https://www2.calrecycle.ca.gov/LandfillTipFees/.

4.13.3.2 STANDARDS OF SIGNIFICANCE

The proposed project would have a significant impact related to solid waste disposal if it would:

7. 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.
8. Be out of compliance with federal, State, and local management and reduction statutes and regulations related to solid waste.
9. In combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to solid waste.

4.13.3.3 IMPACT DISCUSSION

UTIL-7 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.

Project Construction

Site clearance would involve the demolition of parking spaces and other hardscape on the project site. Per SCMC Chapter 8.05, the proposed project would be required to submit a Construction & Demolition Waste Management Plan and would need to divert 60 percent of all generated tonnage for recycling and reuse. In addition, the 2022 CALGreen requires a minimum of 65 percent of the nonhazardous construction and demolition waste to be recycled and/or salvaged. The City maintains a list of recognized construction and demolition debris recycling facilities that accept these wastes.[44] Shoreway Environmental Center typically sends construction and demolition debris to Zanker Landfill in San Jose for recycling. There is sufficient capacity at Shoreway Environmental Center to accept project-related

[44] City of San Carlos Building Division, 2019, Construction & Demolition Waste Management Plan Agreement, https://www.cityofsancarlos.org/home/showpublisheddocument/58/637140016812370000, accessed November 2, 2022.

construction and demolition debris and there is sufficient capacity at Zanker Landfill for recycling the project-generated construction waste.

Project Operation

The City contracts with Recology San Mateo County to provide solid waste collection services. Commercial trash will be collected in three streams – solid waste, single-stream recycling, and compost. All waste and recycling materials would be compacted and emptied on a weekly basis for pickup by Recology San Mateo County.

The proposed project would generate approximately 376 pounds of solid waste per day, based on 2 pounds per room per day using the solid waste generation rate for a hotel (2 lb/room/day x 188 rooms = 376 lb/day), which equates to approximately 137,240 pounds per year or 69 tons per year.[45] This is a conservative (i.e., worst case) estimate because it does not account for the comprehensive recycling plan for the proposed project or the implementation of additional recycling regulations. Over half of the volume of waste generated at the project site would be recycled or composted. The Ox Mountain Landfill has a maximum disposal capacity of 3,598 tons per day and a current disposal rate of 1,700 tons/day. This equates to a residual capacity of approximately 1,898 tons/day. Conservatively assuming that all of the proposed project's waste is landfilled, this would be less than 0.01 percent of the residual capacity. Therefore, there is sufficient capacity at the landfill for solid waste generated by the proposed project.

In summary, implementation of the proposed project would not generate solid waste in excess of State or local standards and would not exceed the capacity of existing landfills or other local infrastructure and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

UTIL-8	**The proposed project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.**

As discussed above, Recology San Mateo County, which serves the project area, complies with State requirements to reduce the volume of solid waste through recycling and organic waste diversion. The proposed project would include areas for storage of solid waste, recyclable materials, and organic waste for pick up by Recology. The per capita disposal rate of 11.1 ppd for San Carlos employees is below the CalRecycle target of 14.4 ppd per employee, and therefore complies with State requirements. The proposed project would not impair the City of San Carlos' compliance with Assembly Bill 939, which requires that cities and counties divert 50 percent of all solid waste from landfills through source reduction, recycling, and composting. In addition, the proposed project would comply with the City's and CALGreen's requirements for diversion or construction and demolition debris and the project applicant would submit a C&E Waste Management Plan for approval by the City prior to the start of construction.

[45] California Department of Resources Recycling and Recovery (CalRecycle). 2019. Estimated Solid Waste Generation Rates. https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates/, accessed November 2, 2022.

Therefore, the proposed project would comply with all federal, State, and local management statutes and regulations related to solid waste and impacts would be *less than significant.*

Significance without Mitigation: Less than significant.

UTIL-9	**The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts regarding solid waste.**

The area considered for cumulative impacts to solid waste disposal is San Mateo County. This is the area serviced by Recology San Mateo County and is the jurisdictional area of San Mateo County Environmental Health Division, which issues permits and regulates solid waste providers and recycling facilities within the County. As described in impact discussion UTIL-7, the landfill serving the City has a residual capacity of more than 1,898 tons/day. Conservatively assuming that all of the solid waste generated by the proposed project is landfilled, the proposed project would generate approximately 0.19 tons/day of landfill waste and, combined with other future projects, the landfill would have sufficient capacity to accommodate future growth within the county.

The population of San Mateo County is forecast to increase from 774,990 in 2021 to 813,098 in 2040, an increase of about five percent.[46] Although growth within the county would lead to increased solid waste generation, Recology San Mateo County and local agencies are working to reduce the amount of landfilled waste through education, recycling, composting, and organic waste collection. If future residents in San Mateo County generate solid waste at the current rate of 6.3 ppd and the waste is not diverted from the landfill by recycling or composting, this would result in an additional disposal quantity of 120 tons/day. This is well below the residual disposal capacity at Ox Mountain Landfill of 1,898 tons/day. Therefore, there is sufficient landfill capacity in the region for regional growth and the cumulative impact regarding solid waste would be *less than significant*.

Significance without Mitigation: Less than significant.

4.13.4 STORMWATER INFRASTRUCTURE

The regulatory framework for stormwater is described in detail in Chapter 4.8, *Hydrology and Water Quality*, of this Draft EIR. The regulatory requirements that pertain solely to storm drain infrastructure are provided below.

[46] California Department of Finance, 2022. County Population Projections (2010 to 2060), https://www.dof.ca.gov/Forecasting/Demographics/Projections/, accessed November 2, 2022.

4.13.4.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

National Pollutant Discharge Elimination System

The NPDES permit program was established by the Clean Water Act to regulate municipal and industrial discharges to surface waters of the United States from their municipal separate storm water systems (MS4s). 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. The project site lies within the jurisdiction of the San Francisco Bay RWQCB (Region 2). The City of San Carlos is subject to the requirements of the Municipal Regional Stormwater NPDES Permit (MRP; Order No. R2-2022-0018; NPDES Permit No. CAS612008), which became effective on July 1, 2022.

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." 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 and public health beneficial uses, and reduce environmental issues associated with trash in State waters, while focusing limited resources on high-trash-generating areas.[47]

The Trash Amendments apply to all Phase I permittees under the NPDES MS4 permits. Compliance with the Trash Amendment requires municipalities to install certified trash treatment control systems on all catch basins.[48]

Regional Regulations

Municipal Regional Stormwater NPDES Permit

Water quality in stormwater runoff is regulated locally by the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP), which includes the C.3 provisions provided in the San Francisco Bay

[47] State Water Resources Control Board, 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/documentation.html, accessed November 2, 2022.

[48] State Water Resources Control Board, 2019, Storm Water Program - Trash Implementation Program. https://www.waterboards.ca.gov/water_issues/programs/stormwater/trash_implementation.html, accessed November 2, 2022.

Regional Water Quality Control Board's (RWQCB) MRP. The 2022 MRP includes stricter requirements for incorporating post-construction stormwater control/low impact development (LID) measures into new development and redevelopment projects. Post-construction stormwater requirements are described in the C.3 Regulated Projects Guide (Version 1.0) issued in February 2020.[49]

Local Regulations

City of San Carlos General Plan

Policies of the San Carlos General Plan relevant to storm drain infrastructure are listed below in Table 4.13-8, *City of San Carlos 2030 General Plan Policies Relevant to Storm Drain Infrastructure*.

TABLE 4.13-8 CITY OF SAN CARLOS 2030 GENERAL PLAN POLICIES RELEVANT TO STORM DRAIN INFRASTRUCTURE

Policy Number	Policy Text
Chapter 6, Environmental Management (EM) Element (Hydrology and Water Quality)	
Policy EM-5.1	Reduce the discharge of toxic materials into the city's sanitary sewer and stormwater collection system by promoting the use of Best Management Practices (BMPs).
Policy EM-5.7	Encourage site designs that manage the quantity and quality of storm water runoff.
Chapter 8, Community Safety and Services (CSS) Element (Flood Hazards)	
Policy CSS-2.1	Improve and maintain City storm drainage infrastructure in a manner that reduces flood hazards.
Policy CSS-2.2	Maintain a healthy riparian corridor in City-maintained flood control channels to reduce the risk of flooding due to erosion, siltation, blockage and heavy undergrowth.
Policy CSS-2.4	Minimize impervious surfaces to reduce stormwater runoff and increase flood protection.
Policy CSS-2.12	Incorporate stormwater drainage systems in development projects to effectively control the rate and amount of runoff, so as to prevent increases in downstream flooding potential.

Source: City of San Carlos, 2009, *2030 General Plan*.

City of San Carlos Municipal Code

The SCMC contains directives pertaining to storm drain issues, as explained in the following paragraphs:

- Chapter 13.14, *Stormwater Management and Discharge Control*. The discharge of non-stormwater discharges to the City storm drain system is prohibited. All projects that will or may result in pollutants entering the City storm drain system must comply with Section 13.14.110, *Reduction of pollutants in stormwater,* to reduce such pollutants, including standards for parking lots and similar structures, and BMPs for new development and redevelopment projects. In addition, this chapter provides for watercourse protection (Section 13.14.120, *Watercourse protection*) to ensure that all watercourses are kept and maintained reasonably free from pollutants and flow restrictions and for the maintenance of healthy bank vegetation.
- Chapter 17.16.270, *Storm Drainage Facilities*. For any subdivision, the subdivider shall dedicate rights of way for storm drainage purposes that conform to the boundary lines of any natural watercourse,

[49] San Mateo Countywide Water Pollution Prevention Program, January 2020, *C.3 Regulated Projects Guide*, https://www.flowstobay.org/wp-content/uploads/2020/03/SMCWPPP-C.3-Regulated-Project-Guide-High-Res_021220_0.pdf, accessed August 22, 2022.

channel, stream, or creek that traverses the subdivision. In addition, the City may require dedication of easements, construction of improvements, or both for the proper disposal of stormwater.

City of San Carlos Storm Drain Standards

The City's Storm Drain Standards provides guidelines for the design and construction of storm drain projects. The guidelines establish minimum acceptable design criteria. More stringent requirements based on specific project conditions may be imposed at the discretion of Public Works and Utilities Department.

City of San Carlos Storm Drain Master Plan

The Storm Drain Master Plan provides the results of technical analyses of the capacity and condition of the City's storm drain infrastructure.[50] The City has experienced periodic flooding over the years due to: 1) storm drain inlet blockages from leaves and debris; 2) stormwater volumes that exceed the capacity of the City's storm drain system; and 3) backwater and overtopping from creeks. In addition, the eastern portion of the City is subject to tidal influences and sedimentation. The Storm Drain Master Plan identifies and prioritizes storm drain improvements that would alleviate flooding in reported flooding areas. The project site is not located in an area susceptible to flooding, as per the Storm Drain Master Plan.

Existing Conditions

The City's storm drain network consists of over 56 miles of pipelines and channels ranging in size from 4-inch pipelines to 72-inch box culverts. The City also operates three pump stations: Pulgas Creek Pump Station, Holly Street Pump Station, and Howard/Brittan Pump Stations that pump water from low-lying areas into Smith Slough and Steinberger Slough. There also are four creeks that flow through or are adjacent to the City that collect stormwater runoff from the City's storm drain system and eventually route the flows into San Francisco Bay.[51]

The existing site has an internal storm drain collection system which eventually connects to the City's 24-inch storm drain in Industrial Road. Runoff flows south along Industrial Road to the Pulgas Creek Pump Station before discharging into Steinberger Slough and eventually into San Francisco Bay.[52]

4.13.4.2 STANDARDS OF SIGNFICANCE

The proposed project would have a significant impact on stormwater infrastructure if it would:

10. 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.

[50] City of San Carlos, April 2017, *City of San Carlos Citywide Storm Drain System Master Plan*, https://www.cityofsancarlos.org/home/showpublisheddocument/2484/636658819040270000, accessed November 2, 2022.

[51] City of San Carlos, April 2017, *City of San Carlos Citywide Storm Drain System Master Plan*, https://www.cityofsancarlos.org/home/showpublisheddocument/2484/636658819040270000, accessed November 2, 2022.

[52] City of San Carlos, 2015, City of San Carlos Storm Infrastructure Maps.

11. In combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to stormwater infrastructure.

4.13.4.3 IMPACT DISCUSSION

UTIL-10 The proposed project would not require or result in the construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects.

As discussed in detail in Chapter 4.8, *Hydrology and Water Quality,* of this Draft EIR, development of the proposed project would involve the construction of an internal network of storm drains, catch basins, and landscaping areas in 21 drainage areas with 15 on-site bioretention areas and five flow-through planter areas to temporarily retain, treat, and ultimately convey on-site flows. Excess runoff from these areas would be diverted to the City's storm drain system in Industrial Road along with any runoff from the self-treating landscaped areas.

As discussed in detail in Chapter 4.8, *Hydrology and Water Quality*, of this Draft EIR, the proposed LID treatment measures, including bioretention areas and flow-through planters, have been designed so the treatment area is at least 4 percent of the effective impervious area, per the SMCWPPP C.3 provisions.[53] Based on the City's storm drainage policy, post-development peak flow rates and velocities were estimated to determine if the City's 24-inch storm drain would have the capacity to convey the runoff from a 10-year storm event.[54] Peak flow rates were calculated using the Rational Method and the methodology provided in the San Mateo County Drainage Manual.

With construction of the proposed on-site detention systems consisting of flow-through planters and bioretention basins, the peak flow rates into the 24-inch storm drain beneath Industrial Road would be less than peak flow rates under existing conditions for up to the 10-year, 60-minute storm event. The results indicate that the existing 24-inch reinforced concrete pipe has the capacity to collect and convey post-development peak flow rates, without impacting downstream conditions. Therefore, the proposed design meets the City's storm drainage policy and would not contribute to downstream flooding.

Therefore, the proposed project would not exceed the capacity of the storm drain system and would not require or result in the construction of new or expanded stormwater drainage facilities, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

[53] SMP Engineers, 2021, *Stormwater Management Plan, New Hotel Development, Hotel Indigo, 501 Industrial Road, San Carlos, CA 94070.*

[54] SMP Engineers, 2020, *Preliminary Hydrology and Hydraulic Calculation, Hotel Indigo, 501 Industrial Road, San Carlos, CA 94070.*

UTIL-11	**The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to stormwater infrastructure.**

This analysis considers the cumulative impact of existing and future development projects within the city on the City's storm drain system. Cumulative impacts can occur when impacts that are less than significant for a proposed project combine with similar impacts from other past, present, or reasonably foreseeable future projects that result in incremental changes that impact drainage and stormwater infrastructure.

All new development within the city would require conformance with State and local policies that would reduce hydrology and infrastructure impacts. Any new development would be subject to City policies and ordinances, design guidelines, zoning codes, and other applicable City requirements that reduce impact to stormwater drainage facilities. More specifically, potential changes related to stormwater flows, drainage, impervious surfaces, and flooding would be minimized by compliance with the C.3 provisions of the MS4 permit and the implementation of stormwater control measures, retention, and LID measures.

The City's Public Works Department would review and approve all potential stormwater infrastructure projects and ensure that they meet the City's design standards. In addition, all projects must comply with the City's Stormwater Management and Pollution Control Ordinance, as set forth in Chapter 13.14 of the SCMC. The City's budget includes funds to manage, maintain, repair, and enhance the City's creeks, levees, drains, pipes, and culverts. The program includes inspecting, monitoring and maintaining the storm drain system, levee maintenance and repair, storm drain and culvert cleaning, trash capture device cleaning, sediment removal from drainage ditches, and creek monitoring. Therefore, the proposed project in combination with past, present, and future projects would result in a *less-than-significant* cumulative impact with respect to stormwater infrastructure.

Significance without Mitigation: Less than significant.

4.13.5 OTHER UTILITIES

4.13.5.1 ENVIRONMENTAL SETTING

This section provides a general description of the regulatory setting addressing existing electric, natural gas and telecommunications infrastructure, supply, and demand in the City of San Carlos. Chapter 4.4, *Energy*, of this Draft EIR analyzes the proposed project's potential impacts associated with energy usage. This section focuses on the infrastructure systems associated with electricity, natural gas, and telecommunication services.

Regulatory Framework

The federal and State regulatory framework for energy is described in detail in Chapter 4.4, *Energy*, of this Draft EIR. This section provides a discussion of local regulations related to energy infrastructure.

Local Regulations

San Carlos 2030 General Plan

The City of San Carlos 2030 General Plan includes goals, policies and implementing actions in Chapter 6, *Environmental Management,* that are relevant to energy conservation for the proposed project. The policies are listed below in Table 4.13-9, *Policies of the San Carlos 2030 General Plan Relevant to Energy Efficiency*.

TABLE 4.13-9 POLICIES OF THE SAN CARLOS 2030 GENERAL PLAN RELEVANT TO ENERGY EFFICIENCY

Policy Number	Policy Text
Chapter 6, Environmental Management (EM) Element	
Policy EM-9.1	Provide assistance and support efforts for increased energy efficiency for businesses and residences through a combination of incentives and regulations.
Policy EM-9.4	Provide outreach to residents, businesses and property owners on incentives, regulations and programs to in- crease energy efficiency.
Policy EM-9.6	Encourage new private construction and major remodels to be designed to meet or exceed Green Uniform Building Code requirements.

Source: City of San Carlos, 2009, *2030 General Plan*.

San Carlos Municipal Code

The City of San Carlos has adopted the California Energy Code in Section 15.04.080, *Title 24, Part 6, California Energy Code with appendices*, of the SCMC, requiring all new building construction to have all electric utilities, with an exemption for non-residential buildings that contain a restaurant or commercial kitchen that is allowed to install gas-fueled cooking appliances, as granted by the Building Official. The proposed project would be all electric with the exception of gas cooking appliances for the restaurant. Additionally, the City of San Carlos incorporates CALGreen by reference in SCMC Section 15.04.125, *Title 24, Part 11, California Green Building Standards Code (CALGreen)*. The types of nonresidential projects in which the SCMC applies include commercial and office uses and includes requirements for electric vehicle changing.

Chapter 18.24, *Wireless Telecommunications Facilities*, provides standards for the development of telecommunications facilities and the installation of antennas to protect the visual character of the city and protect its residents from the possible adverse health effects associated with electromagnetic exposure.

San Carlos Climate Mitigation and Adaptation Plan

The City of San Carlos adopted its Climate Mitigation and Action Plan (CMAP) on September 27, 2021. The CMAP sets forth 33 strategies to guide the City in meeting reduction goals in energy use, transportation, land use, water, wastewater, and solid waste. CMAP strategies and actions for energy use reduction are listed below in Table 4.13-10, *Climate Mitigation and Adaptation Plan Strategies for Reducing Energy Use.*

TABLE 4.13-10 CLIMATE MITIGATION AND ADAPTATION PLAN STRATEGIES FOR REDUCING ENERGY USE

Strategy	Component
1. Regional Energy Conservation and Efficiency Programs	1.1 Encourage single-family homeowners to improve energy efficiency and resiliency in their homes by promoting Property Assessed Clean Energy programs, the Bay Area Regional Network (BayREN) Home+ program, BayREN Earth Day Workshops, Green House Calls, Home Energy Score evaluations, and appliance and electrification rebates.
	1.2 Assess energy efficiency in single-family homes by partnering with San Mateo County, PCE, and other partners to promote the BayREN Green Labeling Home Energy Score program.
	1.3 Provide incentives for installation of all-electric appliances in new residential construction and remodels by partnering with PCE and BayREN.
4. Electrification	4.1 Encourage electrification retrofits in residential and commercial development by promoting financing programs through local organizations and agencies.
	4.2 Promote building electrification and retrofitting by working with local organizations and agencies to increase community awareness
	4.3 Promote and support opportunities for residents to test electric equipment, such as portable induction cooktops, to encourage transitioning from gas to electric appliances.
5. Building Codes	5.1 Partner with local industry organizations, community-based organizations, and regional partners to inform and educate community members about the 2021 All-Electric Reach Code requirements and community benefits
	5.2 Evaluate, update, and re-adopt as needed an all-electric reach code upon each update to the California Building Code.
	5.3 Explore and adopt, as feasible, local building code amendments requiring replacement of natural gas space and water heaters with electric models at end of life during the 2022 and successive Buildings Standards Code updates
6. Rooftop Solar	6.1 Continue to participate in the SunShares program to increase rooftop and on-site solar energy systems in the community and at City facilities.
7. Peninsula Clean Energy	7.1 Encourage residents and businesses, especially large energy users, to opt into PCE's ECO100 (100 percent renewable energy) program.
	7.2 Encourage those not purchasing energy from PCE to do so.
	7.3 Partner with PCE on programs it develops in the future that benefit the San Carlos community.
8. Battery Storage	8.1 Work with PG&E on its efforts to prepare the community for power outages through battery storage programs and incentives, including the Self-Generation Incentive Program and related energy resilience efforts.
18. Electric vehicles	18.1 Work closely with owners of multi-family dwelling units to install electric vehicle charging stations.
23. Clean-fuel construction and landscaping	23.1 Supply incentives for battery-operated or electric-powered landscaping equipment by collaborating with regional partners, such as the BAAQMD and PCE.
	23.2 Continually track technological advances in clean-fuel construction and landscaping equipment.
	23.3 Consider requirements for use of hybrid or clean-fuel construction equipment in new development when feasible.

Source: City of San Carlos, 2021, *City of San Carlos Climate Mitigation and Adaptation Plan*, https://www.cityofsancarlos.org/home/showdocument?id=6727&t=637600587418444510, accessed November 3, 2022.

Existing Conditions

Electricity

In 2016, San Mateo County and the City of San Carlos shifted to local Community Choice Energy (CCE) program Peninsula Clean Energy (PCE). PCE was formed as a Joint Power Authority (JPA) by San Mateo County and 20 of its cities and operates as a not-for-profit public agency. PCE offers two program options: 1) the ECOplus program, which provides 53.4 percent renewable and 100 percent greenhouse gas-free, and 2) the ECO100 program, which provides 100 percent renewable and GHG-free service from solar and wind sources.[55] The electric energy provided by PCE is conveyed to customers through Pacific Gas and Electric's (PG&E) existing infrastructure. PG&E continues to maintain the grid, repair lines, and conduct customer billing within the PCE service area. The total consumption in PG&E's service area was approximately 104,337 gigawatt-hours in 2021.[56] A total of 4,157 GWh of electricity was consumed in San Mateo County in 2021, with the nonresidential sector consuming approximately 60 percent.[57] Additional details regarding PG&E's electric service are provided in Chapter 4.4, *Energy*, of this Draft EIR.

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.[58] PG&E owns and maintains above and below ground networks of electric and gas transmission and distribution facilities throughout the city. PG&E still delivers electricity and natural gas services to the City, although the City recently shifted to energy provider PCE. Both gas and electrical service is available at the project site. The total natural gas consumption in PG&E's service area was approximately 4,493 million therms in 2021.[59] A total of 205 million therms of natural gas was consumed in San Mateo County in 2021, with the nonresidential sector consuming approximately 42 percent.[60] Additional details regarding PG&E's natural gas service are provided in Chapter 4.4, *Energy*, of this Draft EIR.

[55] Peninsula Clean Energy, 2022, Power Mix, https://www.peninsulacleanenergy.com/power-mix/, accessed November 3, 2022.

[56] California Energy Commission, 2022, Electricity Consumption by Planning Area, http://ecdms.energy.ca.gov/elecbyutil.aspx, accessed November 3, 2022.

[57] California Energy Commission, 2022, Electricity Consumption by County, http://ecdms.energy.ca.gov/elecbycounty.aspx, accessed November 3, 2022.

[58] Pacific Gas and Electric Company, 2022, Company profile, https://www.pge.com/en_US/about-pge/company-information/profile/profile.page, accessed November 3, 2022.

[59] California Energy Commission, 2022, Gas Consumption by Planning Area http://www.ecdms.energy.ca.gov/gasbyplan.aspx, accessed November 3, 2022.

[60] California Energy Commission, 2022, Gas Consumption by County, http://www.ecdms.energy.ca.gov/gasbycounty.aspx, accessed November 3, 2022.

Telecommunications

Wireless communications facilities transmit and receive electromagnetic signals via a system of antenna display, connection cables, and towers. There are several telecommunication companies that serve San Carlos, including AT&T and Xfinity/Comcast, among others. Pursuant to Chapter 18.24 of the SCMC, all telecommunications carriers/providers that offer or provide any telecommunications services for a fee directly to the public, either within the City of San Carlos or outside the corporate limits from telecommunications facilities within the city, must be registered with the City to provide service.

4.13.5.2 STANDARDS OF SIGNIFICANCE

The proposed project would have a significant impact on utilities if it would:

12. Require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
13. In combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to utilities.

4.13.5.3 IMPACT DISCUSSION

UTIL-12	**The proposed project would not require or result in the relocation or construction of new or expanded electric power, natural gas, telecommunications facilities the construction or relocation of which could cause significant environmental effects.**

Construction of the proposed project would not require electricity to power most construction equipment. Electricity use during construction would vary during the different phases, but most of the construction equipment would be gas- or diesel-powered. The later stages of construction may require electric-powered equipment for interior construction and architectural coatings, but the overall use would be temporary. Hand tools, such as power drills, table saws, and compressors, and lighting would result in minimal electricity usage.

The operational phase of the proposed project would consume electricity for heating and cooling; water heating; operation of electrical systems, equipment, and appliances, and indoor/outdoor lighting. PCE would provide electricity to the hotel through connections to the existing PG&E electrical grid and new on-site infrastructure.

The proposed project would require electrical services totaling an estimated 1,062,159 kilowatt-hours per year, as described in Chapter 4.4, *Energy*, of this Draft EIR. This electricity consumption level is typical for projects of this size and represents a modest increase in electricity demand when considered in the context of PCE and PG&E's service territories. In addition, the proposed project would be required to comply with energy efficiency standards in Title 24 of the California Administrative Code and the Appliance Efficiency Regulations. The proposed project would also comply with CALGreen requirements

related to energy and water conservation. These measures will decrease electricity consumption. The proposed project would be all electric with the exception of gas cooking appliances associated with the restaurant. This single use would connect to the existing PG&E gas infrastructure and would not require expanded natural gas service by PG&E. Electricity and natural gas usage are further described in Chapter 4.6, *Greenhouse Gas Emissions*, of this Draft EIR.

Additionally, the proposed project would connect to existing telecommunication services, which include AT&T and Xfinity/Comcast, among others. All telecommunications companies are subject to California Public Utility Code and SCMC requirements regarding telecommunications facilities. Although underground telecommunications cables would be installed throughout the project site, there are no plans for installation of a cell tower or other large telecommunications infrastructure near or on the site.

The proposed project would not result in a substantial increase in electrical service demands such that PCE would need to expand its supply and transmission facilities. Also, no significant expansion or construction of the telecommunications network is anticipated. Therefore, the impacts to these utilities would be *less than significant*.

Significance without Mitigation: Less than significant.

UTIL-13	**The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to electricity, natural gas, and telecommunication facilities.**

The area considered for cumulative impacts to electricity supply and facilities is PG&E's service area. The electricity consumption for PG&E's service area decreased between 2017 and 2020, partially due to self-generation (solar and wind) within the PG&E planning area. PG&E indicates that they will have sufficient capacity to serve their existing and future customers through 2030.[61]

All projects within PG&E's service area would be required to comply with energy efficiency standards in Title 24 of the California Administrative Code and the Appliance Efficiency Regulations. Projects would also comply with CALGreen requirements related to energy and water conservation. These measures would reduce the overall consumption of electricity.

It is assumed that electricity demands by other projects have been included in the PCE demand forecasts. Furthermore, telecommunication services currently exist to serve the project site. Other projects would be subject to independent CEQA review, including analysis of impacts to electricity and telecommunications. Therefore, cumulative impacts would be *less than significant*, and project effects would not be cumulatively considerable.

Significance without Mitigation: Less than significant.

[61] Pacific Gas & Electric Company, September 1, 2020. *2020 Integrated Resource Plan, Prepared for the California Public Utilities Commission*.

5. Alternatives

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 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), *Consideration and Discussion of Alternatives to the Proposed Project*, 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.

A "No Project" Alternative is required as part of a "reasonable range of alternatives."

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 SIGNIFICANT IMPACTS

All of the potential environmental impacts associated with development of the proposed project were found to be either less than significant without mitigation or less than significant with mitigation. No significant and unavoidable impacts were identified as a result of construction and operation of the

proposed project. A list of potential impacts is provided in Table 1-1, *Summary of Impacts and Mitigation Measures*, in Chapter 1, *Executive Summary*, of this Draft EIR.

5.3 PROJECT OBJECTIVES

As stated above, the range of potential alternatives must be able to feasibly attain most of the basic objectives of the proposed project. The objectives identified by the project applicant, in coordination with the City, for the proposed project are included in Chapter 3, *Project Description*, of this Draft EIR and are repeated as follows:

- Provide a design-forward boutique hotel, one of the few on the Peninsula.
- Implement design and utilize materials in current and artful ways to celebrate the past, present, and future, with a focus on technology and community.
- Reduce vehicular traffic with the project location's proximity to its customer base.
- Install landscaping to help identify the area as a Gateway to San Carlos.
- Contribute to increasing the City's tax base by providing 188 rentable hotel rooms.
- Create a desirable location for the community by providing a ground-floor restaurant and bar with outdoor patio and 4,000 square feet of rentable meeting and event space that can be utilized by the community.

5.4 ALTERNATIVES CONSIDERED AND REJECTED

Section 15126.6(c) of the State 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.

According to the State CEQA Guidelines Section 15364, feasibility is defined as:

> [The capability] of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

As described above, Section 15126.6(c) of the State CEQA Guidelines requires EIRs to 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. Section 15126.6(c) provides that among the factors that may be used to eliminate alternatives from detailed consideration in the EIR are (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

A residential alternative was not selected for analysis because residential uses are not permitted on the project site under current zoning, and because the project site is in a highly visible location within a designated gateway, which lends the site to landmark, rather than residential, use. As described in Chapter 4.9, *Land Use and Planning*, of this Draft EIR, the project site is zoned Landmark Commercial (LC) and is within the Holly Street East of El Camino Real Primary Gateway. The LC district is intended to accommodate key parcels known collectively as landmark sites, which are targeted for economic development of regional retail and destination-oriented uses, including hotels, that are intended to serve regional users and contribute to the City's economic sustainability and employment growth. Residential uses are not permitted in the LC district. The project site is also designated as a Landmark Site; Landmark Sites have high visibility, and uses drawing from a regional market-base are encouraged. Landmark Sites are targeted for economic development for regional destination-oriented uses, including hotels that serve regional users and have significant beneficial results in employment growth, thus contributing to the economic sustainability of San Carlos. Given the site's location at the intersection of Holly Street and Industrial Road, and its proximity to the U.S. Highway 101 ramps, a residential development project would not be an appropriate use for the site, nor would it be permitted under current land use regulations. In addition, a residential project would fail to meet most of the project's objectives. For these reasons, a residential use alternative was rejected from consideration.

5.5 OVERVIEW OF PROJECT ALTERNATIVES

In accordance with the CEQA Guidelines, two project alternatives and the comparative merits of the alternatives are discussed below.

All of the potential environmental impacts associated with the proposed project were found to be either less than significant without mitigation or less than significant with mitigation. The alternatives were selected because of their potential to further reduce potentially significant effects of the project.

The alternatives to be analyzed in comparison to the proposed project include:

- No Project Alternative – Regional Retail. Under the No Project Alternative, the project would not be constructed, and the project site would be developed with a regional retail establishment.
- Lower-Intensity Hotel Alternative. The Lower-Intensity Hotel Alternative is intended to reduce construction noise impacts by adjusting the height of the proposed hotel building to reduce the length of construction activities.

Table 5-1, *Comparison of Project Alternatives*, compares the impact of each alternative to impacts of the project for each of the environmental topics analyzed in detail in Chapters 4.1 through 4.13 of this Draft EIR. The impacts of each alternative are classified as greater, lessened, or similar to the level of impacts associated with the proposed project.

TABLE 5-1 COMPARISON OF PROJECT ALTERNATIVES

Topic	Proposed Project [a]	No Project Alternative	Lower-Intensity Hotel Alternative
Air Quality	LTS/M	+	<
Biological Resources	LTS	=	=
Cultural Resources	LTS/M	=	=
Energy	LTS	<	<
Geology and Soils	LTS/M	=	=
Greenhouse Gas Emissions	LTS	=	<
Hazards and Hazardous Materials	LTS/M	=	=
Hydrology and Water Quality	LTS	=	=
Land Use and Planning	LTS	=	=
Noise	LTS/M	=	<
Transportation	LTS	<	=
Tribal Cultural Resources	LTS/M	=	=
Utilities and Service Systems	LTS	=	<

Notes:
a. The impacts listed in this column represent the highest significance determination for each respective standards of significance.

Impact Acronyms:
LTS Less-than-Significant without Mitigation
LTS/M Less-than-Significant with Mitigation
SU Significant and Unavoidable

Symbols:
< Reduced impact in comparison to the proposed project
= Similar impact in comparison to the proposed project.
+ Greater impact in comparison to the proposed project

5.6 IMPACT ASSESSMENT

5.6.1 NO PROJECT ALTERNATIVE

5.6.1.1 DESCRIPTION

Under the No Project Alternative, the proposed project would not be constructed, and it is assumed that the project site would be developed adhering to existing zoning regulations. Because the land is zoned Landmark Commercial, which is targeted for regional retail and destination-oriented uses,[1] this alternative assumes that the project site would be developed with a regional retail establishment. While the precise size, design, and site layout of the retail development is not known, it is assumed that it would occupy a similar footprint as the proposed project (approximately 31,000 square feet) and would be built to a maximum of three stories, for a total square footage of approximately 93,000 gross square feet. The overall building size would therefore be smaller in size than the proposed project, which would be 136,000 gross square feet and six stories tall.

[1] San Carlos Municipal Code, Chapter 18.06 Commercial Districts, LC Landmark Commercial, https://www.codepublishing.com/CA/SanCarlos/#!/SanCarlos18/SanCarlos1806.html#18.06, accessed December 1, 2022.

5.6.1.2 IMPACT DISCUSSION

Air Quality

As discussed in Chapter 4.1, *Air Quality*, the proposed project would not result in significant air quality impacts after mitigation. The proposed project would not conflict with or obstruct implementation of the BAAQMD *2017 Clean Air Plan*. Mitigation measures would reduce impacts associated with emissions of fugitive dust and toxic air contaminants (TACs) to less-than-significant levels. The proposed project would not result in other emissions, such as those leading to odors, adversely affecting a substantial number of people.

Neither the proposed project nor the No Project Alternative would conflict with or obstruct the implementation of the *2017 Clean Air Plan*. The No Project Alternative would have fewer construction emissions than the proposed project because the building size would be reduced in comparison to the proposed project.

As discussed in Chapter 4.1, the operational emissions of the proposed project would be substantially below the Bay Area Air Quality Management District's (Air District) annual project-level threshold for operational criteria air pollutant emissions, with tons per year below one (1) where the threshold ranges from 10 to 15. The regional retail uses involved in the No Project Alternative would involve different trip characteristics than the proposed hotel project, and overall vehicle trips are expected to be substantially higher than for the proposed project. Daily vehicle trips for a 93,000-square-foot shopping plaza would range from 6,279 to 8,788, depending on whether or not the shopping plaza contains a grocery store,[2] compared to 756 daily trips expected for the proposed project.[3]

Therefore, the No Project Alternative would have the potential to result in additional air quality impacts that would not be expected for the proposed project, and this alternative would result in *greater* air quality impacts compared to the proposed project.

Biological Resources

As discussed in Chapter 4.2, *Biological Resources*, the proposed project would not result in significant impacts to wildlife movement.

Similar to the proposed project, impacts to biological resources would be less than significant, due to the previously developed and disturbed nature of the proposed site and location in a highly urbanized environment. Although the precise building design of the retail development that would be built under the No Project Alternative is not known, it is assumed that, like the proposed project, the retail building could be designed to reduce the potential for bird strike.

[2] Based on land use code 821 (Retail – Shopping Plaza), Institute of Transportation Engineers, Trip Generation Manual, 11th edition.

[3] W-Trans, 2022, *501 Industrial Road CEQA Transportation Analysis*. See Appendix H, *Transportation*, of this Draft EIR.

Overall, the No Project Alternative would result in *similar* impacts to biological resources compared to the proposed project.

Cultural Resources

As discussed in Chapter 4.3, *Cultural Resources*, the project site is not listed in a register of historical resources. The proposed project would involve ground disturbance and could damage archaeological resources and/or human remains; however, such impacts would be less than significant with mitigation.

In comparison to the proposed project, the No Project Alternative would involve a similar level of ground disturbance that could damage archeological resources, paleontological resources, and/or human remains. This alternative would be required to comply with the same General Plan policies and procedures intended to protect cultural resources. Similar to the proposed project, the No Project Alternative would be required to implement mitigation measures in the event of discovery of unknown resources.

Overall, the No Project Alternative would result in *similar* impacts to cultural resources compared to the proposed project.

Energy

As discussed in Chapter 4.4, *Energy*, the proposed project would result in less-than-significant energy impacts. The proposed project would use energy for construction and operation, but it would not be in a wasteful, inefficient, or unnecessary manner, and would not conflict with a State or local plan for renewable energy or energy efficiency.

The project site is currently vacant. Thus, the project site does not include any existing uses that currently generate energy demands. Like the proposed project, the No Project Alternative would require energy usage, but it is expected that, like the proposed project, the No Project Alternative would be designed to avoid the wasteful, inefficient, or unnecessary use of energy. However, given that the proposed project is larger than the No Project Alternative, the proposed project would consume more energy during construction and operation. Therefore, the No Project Alternative would result in slightly *lessened* energy impacts when compared to the proposed project.

Geology and Soils

As discussed in Chapter 4.5, *Geology and Soils*, the proposed project would result in a significant impact associated with ground shaking; this impact would be less than significant following mitigation requiring adherence to the Project Geotechnical Report. While no paleontological resources have been identified on the project site, and the Project's Geotechnical Report has determined that paleontological resources or unique geological features are unlikely to be encountered, the proposed project would be required to implement mitigation in the event that unknown paleontological resources are discovered. All other geological impacts would be less than significant. The project site is not located within an earthquake fault zone but is expected to experience "strong" shaking due to its location in a seismically active region. Although the project site is in an area designated with a very high liquefaction potential, the Project's

Geotechnical report concludes that the site is at a low potential for loss of bearing or sand boils. The proposed project would not be located on a geologic unit or unstable soil and would not directly or indirectly cause potential substantial adverse effects involving lateral spreading, landslides, subsidence, collapse or expansion. The proposed project would not result in substantial soil erosion or the loss of topsoil, nor require the use of septic tanks or alternative wastewater disposal systems.

In comparison to the proposed project, the No Project Alternative would result in a similar level of ground disturbance, and would be required to adhere to applicable regulations and procedures to prevent erosion. As under the proposed project, it is expected that the retail development under the No Project Alternative would be required to adhere to applicable measures in a project-specific geotechnical report that would prescribe building methods and practices to reduce potential geologic and seismic hazards.

It is expected that impacts under the No Project Alternative would be less than significant with mitigation. Therefore, the No Project Alternative would result in *similar* impacts to geology, soils, and seismicity compared to the proposed project.

Greenhouse Gas Emissions

As discussed in Chapter 4.6, *Greenhouse Gas Emissions*, the proposed project would not generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant effect on the environment, nor would it conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. The proposed project would produce GHG emissions during operation and construction; however, the proposed project would be consistent with the strategies identified in the *San Carlos Climate Mitigation and Adaptation Strategy*.

Compared to the proposed project, the No Project Alternative would involve reduced emissions from building construction due to the smaller size of the regional retail building. However, the No Project Alternative would involve substantially increased vehicle trips, which would generate increased operational emissions.

It is expected that, similar to the proposed project, the No Project Alternative would be designed so as to not conflict with the *San Carlos Climate Mitigation and Adaptation Strategy* because the new building would be consistent with the strategies identified in the plan and would not cause cumulative impacts to GHG Emissions.

Overall, the No Project Alternative would result in *similar* GHG emissions impacts compared to the proposed project.

Hazards and Hazardous Materials

As discussed in Chapter 4.7, *Hazards and Hazardous Materials*, the proposed project would result in a significant-but-mitigable impact associated with potential airport-related hazards due to the proximity of the site to San Carlos Airport. The proposed project is above 30 feet and located in an area where heights of structures are limited under Federal Aviation Administration (FAA) Part 77 Regulations to avoid hazards to air navigation. The project applicant has filed Form 74601-1, *Notice of Proposed Construction or*

Alteration, with the FAA and has received approval. The project site is also located within Area B of the San Carlos Airport Influence Area, and the Overflight Easement Review Area which has potential to cause significant impacts, but would be mitigated with City/County Association of Governments of San Mateo County review and discretionary approval. All other hazards and hazardous materials impacts would be less than significant.

Although the precise building design of the No Project Alternative is not known, it is assumed that, because the maximum allowable height in the LC district is 50 feet, the retail building would be taller than 30 feet; therefore, similar to the proposed project, the No Project Alternative would result in significant-but-mitigable impacts associated with potential aviation safety hazards. Similar to the proposed project, the No Project Alternative would not interfere with an emergency operations plan or expose people or structures to the accidental release of hazardous materials, in addition to having less-than-significant impacts to any hazardous materials found on the project site.

Overall, the No Project Alternative would result in *similar* impacts to hazards and hazardous materials compared to the proposed project.

Hydrology and Water Quality

As discussed in Chapter 4.8, *Hydrology and Water Quality*, the proposed project would result in less-than-significant hydrologic impacts. The proposed project would not violate any water quality standards or substantially decrease groundwater supplies. The existing drainage pattern would not be substantially altered by the proposed project in a manner that would result in substantial erosion or siltation, substantially increase the rate or amount of surface runoff in a manner that would result in flooding, exceed the capacity of stormwater drainage systems, or implode or redirect flood flows. The project site is within the FEMA flood zone AE, but project construction would adhere to the San Carlos Municipal Code (SCMC) Chapter 15.56, *Flood Damage Prevention*, to minimize the potential for flooding and thus the risk of pollutant release. The site is not at risk of flooding due to dam failure, tsunamis, or seiches. The proposed project would also not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Like the proposed project, the No Project Alternative would be required to adhere to applicable regulations and procedures intended to reduce impacts associated with runoff, erosion, flooding, and water quality.

Overall, the No Project Alternative would result in *similar* impacts to hydrology and water quality compared to the proposed project.

Land Use and Planning

As discussed in Chapter 4.9, *Land Use and Planning*, the proposed project would result in less-than-significant impacts to land use and planning. It would not physically divide an established community, or conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

The No Project Alternative would be consistent with zoning regulations and, like the proposed project, would involve non-residential development that would not divide an established community or conflict with land use policies or a habitat conservation plan. Therefore, the land use and planning impacts would be less than significant, as under the proposed project.

Overall, the No Project Alternative would result in *similar* impacts to land use and planning compared to the proposed project.

Noise

As discussed in Chapter 4.10, *Noise*, the proposed project would result in significant but mitigable impacts associated with the temporary increase in ambient noise levels due to construction equipment. The proposed project would not expose people to other significant noise impacts such as operational noise from the outdoor courtyard, traffic noise, airport noise and construction vibration impacts.

Similar to the proposed project, the No Project Alternative would not expose people to excessive groundborne vibrations or noise levels, substantially increase permanent ambient noise levels in the project vicinity or create cumulative impacts with surrounding development projects. In comparison to the proposed project, the No Project Alternative would involve substantially greater vehicle trip levels, which would increase the project's contribution to roadway noise.

Like the proposed project, the No Project Alternative would have the potential to create noise levels that exceed standards established in the General Plan and SCMC and cause a substantial temporary increase in noise levels due to construction equipment. However, due to the smaller size of the No Project Alternative, the No Project Alternative would involve a reduced construction duration when compared to the proposed project. Therefore, the impact from construction noise would be lessened although not entirely avoided.

Overall, the No Project Alternative would result in *similar* noise impacts when compared to the proposed project.

Transportation

As discussed in Chapter 4.11, *Transportation*, the proposed project would result in less-than-significant impacts with mitigation regarding policy consistency, vehicle miles traveled (VMT), sight distance, and emergency access.

Like the proposed project, the No Project Alternative would provide connectivity to existing transit services and pedestrian and bicycle facilities. The No Project Alternative would also be required to adhere to Chapter 18.25, *Transportation Demand Management*, of the SCMC, which requires development projects in San Carlos to include a transportation demand management (TDM) plan to reduce project trip generation by 20 percent. Although the precise site layout of the No Project Alternative is not known, it is expected that, as under the proposed project, this alternative could be designed to avoid impacts associated with site distance and emergency access.

Overall, impacts to transportation under this alternative would be expected to be less than significant and would therefore be *less* when compared to the proposed project.

Tribal Cultural Resources

As discussed in Chapter 4.12, *Tribal Cultural Resources*, the proposed project would involve ground disturbance that could potentially damage unknown tribal cultural resources; however, such impacts would be less than significant with mitigation.

In comparison to the proposed project, the No Project Alternative would include a similar development footprint, involving ground disturbance that could potentially damage unknown tribal cultural resources. Much like the proposed project, mitigation measures would be followed in the event of accidental discovery of unknown resources.

Overall, impacts to tribal cultural resources under this alternative would be *similar* when compared to the proposed project.

Utilities and Service Systems

As discussed in Chapter 4.13, *Utilities and Service Systems*, the proposed project would result in less-than-significant impacts associated with water, wastewater, solid waste, stormwater infrastructure, and other utilities. The proposed project would not result in the relocation of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities. There would be sufficient water supplies available to serve the proposed project and reasonably foreseeable future development during normal, dry, and multiple dry years. The project-serving wastewater treatment provider would have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. The proposed project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

As a retail project, the No Project Alternative would include a reduced number of restrooms and showers than the proposed project and would be expected to result in an overall lower level of water demand and wastewater generation. However, it is possible that other utility and service usage, such as solid waste generation, may be higher than under the proposed project. As the retail tenants under the No Project Alternative is not yet known, it is not possible to calculate the specific utility demands of this alternative.

Overall, because the No Project Alternative would involve a land use typical of the urban environment, it is expected the No Project Alternative would not result in utility or service demands that could not be met by service providers' existing capacities and, therefore, overall impacts would be *similar* when compared to the proposed project.

5.6.1.3 RELATIONSHIP OF THE ALTERNATIVE TO THE OBJECTIVES

The No Project Alternative would meet some of the project objectives, but it would not meet the objectives specific to the project being a hotel. Through site and building design, the No Project Alternative would have the potential to meet the following objectives:

- Implement design and utilize materials in current and artful ways to celebrate the past, present, and future, with a focus on technology and community.
- Install landscaping to help identify the area as a Gateway to San Carlos.
- Create a desirable location for the community by providing a ground-floor restaurant and bar with outdoor patio and 4,000 square feet of rentable meeting and event space that can be utilized by the community.

However, the No Project Alternative would not meet the following objectives:

- Provide a design-forward boutique hotel, one of the few on the Peninsula.
- Reduce vehicular traffic with the project location's proximity to its customer base.
- Contribute to increasing the City's tax base by providing 188 rentable hotel rooms.

5.6.2 LOWER-INTENSITY HOTEL ALTERNATIVE

5.6.2.1 DESCRIPTION

The Lower-Intensity Hotel Alternative is intended to reduce construction noise impacts by adjusting the height of the proposed project to decrease the length of construction activities. Consistent with the LC district maximum allowable height, the hotel in this alternative would be built to a maximum height of 50 feet. The Lower-Intensity Hotel Alternative would involve a four-story hotel with 120 rooms. With the exception of the reduced height and the room number, the configuration and site plan of the hotel would remain unchanged under this alternative when compared to the proposed project.

5.6.2.2 IMPACT DISCUSSION

Air Quality

As discussed in Section 5.6.1.2, the proposed project would result in significant-but-mitigable impacts on air quality. Neither the proposed project nor the Lower-Intensity Hotel Alternative would conflict with or obstruct the implementation of the *2017 Clean Air Plan*.

In comparison to the proposed project, the Lower-Intensity Hotel Alternative would be shorter in height and have fewer rooms than the proposed project. The Lower-Intensity Hotel Alternative would have reduced construction emissions than the proposed project because the building size would be reduced in comparison to the proposed project. The reduced building space and number of rooms would also generate reduced operational air emissions when compared to the proposed project. Therefore, the Lower-Intensity Hotel Alternative would result in slightly *lessened* air quality impacts compared to the proposed project.

Biological Resources

As discussed in Section 5.6.1.2, the proposed project would not result in significant impacts to wildlife movement.

Similar to the proposed project, impacts to biological resources would be less than significant due to the previously developed and disturbed nature of the proposed site and location in a highly urbanized environment. The building design for the Lower-Intensity Hotel Alternative would be very similar to the proposed project, which is designed to reduce the potential for bird strike.

Overall, the Lower-Intensity Hotel Alternative would result in *similar* impacts to biological resources compared to the proposed project.

Cultural Resources

As discussed in Section 5.6.1.2, the project site is not listed in a register of historical resources and the proposed project would not result in significant impacts to cultural resources after mitigation.

Under the Lower-Intensity Hotel Alternative, the project would be composed of roughly the same components as the proposed project and would involve ground disturbance that could damage undiscovered archeological resources and/or human remains. However, impacts would remain less than significant with mitigation. Therefore, impacts of the Lower-Intensity Hotel Alternative to cultural resources would be *similar* when compared to the proposed project

Energy

As discussed in Section 5.6.1.2, the proposed project would result in less-than-significant energy impacts.

Like the proposed project, the Lower-Intensity Hotel Alternative would use energy for construction and operation. Similar to the proposed project, the Lower-Intensity Hotel Alternative would require energy usage but, as under the proposed project, it is expected that the Lower-Intensity Hotel Alternative would be designed to avoid wasteful, inefficient, or unnecessary use of energy. However, given that the proposed project is larger than the Lower-Intensity Hotel Alternative, the proposed project would consume more energy during construction and operation. Therefore, the Lower-Intensity Hotel Alternative would result in slightly *lessened* energy impacts when compared to the proposed project.

Geology and Soils

As detailed in Section 5.6.1.2, impacts of the proposed project to geology and soils would be less than significant with mitigation.

Like the proposed project, the Lower-Intensity Hotel Alternative would result in a similar level of ground disturbance and would be required to adhere to applicable regulations and procedures to prevent erosion. Similar to the proposed project, it is expected that the hotel development under the Lower-Intensity Hotel Alternative would be required to adhere to applicable measures in a project-specific geotechnical report that would prescribe building methods and practices to reduce potential geologic and seismic hazards.

It is expected that impacts under the Lower-Intensity Hotel Alternative would be less than significant with mitigation. Therefore, the Lower-Intensity Hotel Alternative would result in *similar* impacts to geology, soils, and seismicity compared to the proposed project.

Greenhouse Gas Emissions

As discussed in Section 5.6.1.2, the proposed project would not result in any significant impacts related to GHG emissions.

Compared to the proposed project, the Lower-Intensity Hotel Alternative would involve reduced building construction due to its smaller size, which would slightly reduce construction GHG emissions. It is expected that, similar to the proposed project, the Lower-Intensity Hotel Alternative would be designed so as to not conflict with the *San Carlos Climate Mitigation and Adaptation Strategy* and would not cause cumulative impacts to GHG Emissions. The reduced building space and number of rooms would also generate reduced operational GHG emissions when compared to the proposed project.

Overall, the Lower-Intensity Hotel Alternative would result in *lessened* GHG emission impacts compared to the proposed project.

Hazards and Hazardous Materials

As detailed in Section 5.6.1.2, the proposed project would result in significant-but-mitigable impacts to hazards and hazardous materials.

The building design of the Lower-Intensity Hotel Alternative will be taller than 30 feet and, therefore, similar to the proposed project, the Lower-Intensity Hotel Alternative would result in significant-but-mitigable impacts associated with potential aviation safety hazards. Similar to the proposed project, the Lower-Intensity Hotel Alternative would not interfere with an emergency operations plan or expose people or structures to the accidental release of hazardous materials, in addition to having less-than-significant impacts to any hazardous materials found on the project site.

Overall, the Lower-Intensity Hotel Alternative would result in *similar* impacts to hazards and hazardous materials compared to the proposed project.

Hydrology and Water Quality

As described in Section 5.6.1.2, impacts of the proposed project to hydrology and water quality would be less-than-significant.

The Lower-Intensity Hotel Alternative would involve the same site configuration and layout as the proposed project. Therefore, as under the proposed project, the existing drainage pattern would not be considerably altered in a way that would result in substantial erosion or siltation, substantially increase the rate or amount of surface runoff in a manner that would result in flooding, exceed the capacity of stormwater drainage systems, or impede or redirect flood flows. The project site is within the FEMA flood zone AE, but project construction would adhere to SCMC Chapter 15.56, *Flood Damage Prevention*, to

minimize the potential for flooding and thus the risk of pollutant release. The site is not at risk of flooding due to dam failure, tsunamis, or seiches.

The Lower-Intensity Hotel Alternative would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan, violate any water quality standards, or substantially decrease groundwater supplies. Thus, this alternative would result in *similar* impacts to hydrology and water quality when compared to the proposed project.

Land Use and Planning

As described in Section 5.6.1.2, the proposed project would not result in significant impacts to land use and planning.

Under the Lower-Intensity Hotel Alternative, much of the project characteristics would remain the same but the number of hotel units and height of the building would be reduced. Therefore, as under the proposed project, this alternative would not result in physical division of an established community or conflict with any land use plan, policy, or regulation. Therefore, the Lower-Intensity Hotel Alternative would result in less-than-significant land use and planning impacts and impacts would be *similar* when compared to those of the proposed project.

Noise

As stated in Section 5.6.1.2, the proposed project would result in significant but mitigable impacts associated with the temporary increase in ambient noise levels due to construction equipment.

Similar to the proposed project, the Lower-Intensity Hotel Alternative would not expose people to excessive groundborne vibrations or noise levels, substantially increase permanent ambient noise levels in the project vicinity or create cumulative impacts with surrounding development projects. In comparison to the proposed project, the Lower-Intensity Hotel Alternative would involve slightly reduced trip levels, which would decrease the project's contribution to roadway noise.

Like the proposed project, the Lower-Intensity Hotel Alternative would have the potential to create noise levels that exceed standards established in the General Plan and SCMC and cause a substantial temporary increase in noise levels due to construction equipment. However, due to the smaller size of the Lower-Intensity Hotel Alternative, the Lower-Intensity Hotel Alternative would involve a reduced construction duration when compared to the proposed project. Therefore, the impact from construction noise would be lessened although not entirely avoided.

Overall, the Lower-Intensity Hotel Alternative would result in *lessened* impacts to noise compared to the proposed project.

Transportation

As stated in Section 5.6.1.2, the proposed project would result in less-than-significant impacts with mitigation regarding transportation.

Under the Lower-Intensity Hotel Alternative, the project would be designed to accommodate a reduced number of units. The Lower-Intensity Hotel Alternative would involve an overall similar site plan as the proposed project, with some adjustments that would not affect the overall circulation or transportation demand of the project. Therefore, this alternative would result in the same less-than-significant impacts as the proposed project and impacts would be *similar* when compared to the proposed project.

Tribal Cultural Resources

As described in Section 5.6.1.2, tribal cultural resource impacts of the proposed project would be less than significant with mitigation.

Under the Lower-Intensity Hotel Alternative, there would be ground-disturbing activities that could impact tribal cultural resources that may be buried in site soils, but impacts would be less than significant with mitigation as under the proposed project. Therefore, under the Lower-Intensity Hotel Alternative, impacts to tribal cultural resources would be *similar* when compared to the proposed project.

Utilities and Service Systems

As discussed in Section 5.6.1.2, the proposed project would result in less-than-significant impacts associated with water, wastewater, solid waste, stormwater infrastructure, and other utilities.

Due to the reduced size of the Lower-Intensity Hotel Alternative, there would be fewer restrooms and showers than the proposed project, which would result in an overall lower level of water demand and wastewater generation.

Because the Lower-Intensity Hotel Alternative would involve a land use typical of the urban environment, it is expected the Lower-Intensity Hotel Alternative would not result in utility or service demands that could not be met by service providers' existing capacities.

Due to the decreased level of water demand and wastewater generation, overall utilities and service system impacts would be slightly *lessened* when compared to the proposed project.

5.6.2.3 RELATIONSHIP OF THE ALTERNATIVE TO THE OBJECTIVES

As most of the project components would remain the same under the Lower-Intensity Hotel Alternative, this alternative would fulfill almost all of the project objectives. The only objective that would not be satisfied under this alternative is that this option would not contribute to increasing the City's tax base by providing 188 rentable hotel rooms, as this alternative would provide 120 rooms instead.

5.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The environmentally superior alternative is the alternative that would be expected to generate the least amount of significant impacts. In addition to the discussion and comparison of impacts of the project and the alternatives, Section 15126.6 of the CEQA Guidelines requires that an "environmentally superior"

alternative be identified. Identification of the environmentally superior alternative is an informational procedure and the alternative identified may not be the alternative that best meets the goals or needs of the project applicant or the City of San Carlos.

As shown in Table 5-1, the Lower-Intensity Hotel Alternative would be the environmentally superior alternative. In comparison to the proposed project, this alternative would result in an overall lower level of impact compared to the proposed project for the environmental topic areas of air quality, energy, greenhouse gas emissions, noise, and utilities and service systems.

6. CEQA-Mandated Sections

This chapter provides an overview of the impacts of the proposed project based on the analyses presented in Chapters 4 and 5 of this Draft Environmental Impact Report (EIR). The topics covered in this chapter include significant unavoidable impacts, significant irreversible changes to the environment, and growth inducement. A more detailed analysis of the effects the proposed project would have on the environment and proposed mitigation measures to minimize significant impacts are provided in Chapters 4.1 through 4.13.

6.1 IMPACTS FOUND NOT TO BE SIGNIFICANT

Section 15128 of the California Environmental Quality Act (CEQA) Guidelines states:

> An EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR.

Development of the proposed project would not result in significant environmental impacts to the environmental impact topics listed below and therefore, are not discussed in detail in Chapters 4.1 through 4.13 of this Draft EIR.

6.1.1 AESTHETICS

The proposed project site is in a Transit Priority Area and qualifies as an "Employment Center" with a floor area ratio (FAR) of 1.3. Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment. (CEQA Guidelines Section 21099(d)(1).) Therefore, impacts would be less than significant under CEQA, and no mitigation would be required.

6.1.2 AGRICULTURAL AND FORESTRY RESOURCES

According to the San Carlos General Plan Land Use Map, the proposed project site is within the Landmark Commercial Zoning District. The General Plan, General Plan land use map, and zoning map do not identify any agriculture or forestry resources in the city. In addition, maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency categorize most land in San Carlos as Urban and Built-Up Land.[1] There are no agricultural lands classified as Prime Farmland, Unique

[1] California Department of Conservation, 2018, California Important Farmland Finder, https://maps.conservation.ca.gov/DLRP/CIFF/, accessed May 13, 2022.

Farmland, or Farmland of Statewide Importance in the City of San Carlos. The project site is not under a Williamson Act Contract, and there are no agricultural land uses adjoining the site.[2] Therefore, approval and implementation of the proposed project would not conflict with lands under Williamson Act contract. For these reasons, there would be no impacts to agricultural or forestry resources and no mitigation would be required.

6.1.3 MINERAL RESOURCES

The California Geological Survey (CGS) classifies the regional significance of mineral resources in accordance with the California Surface Mining and Reclamation Act (SMARA) of 1975 and assists in the designation of lands containing significant aggregate resources. CSG's Mineral Land Classification Project provides objective economic-geologic expertise to assist in the protection and development of mineral resources through the land-use planning process. The SMARA classification for the area encompassing the project site is Special Report 146: Part II: Classification of Aggregate Resource Areas – South San Francisco Bay Production – Consumption Region.[3] No minerals are currently mined within the project site. The published Mineral Resource Zones and Resource Sectors map for the San Francisco and San Mateo Counties indicates that there are no mineral resources available within the project site or vicinity.[4] Because no mineral resources are available, there would be no impact and no mitigation would be required.

6.1.4 POPULATION AND HOUSING

The proposed hotel project is consistent with the "General Commercial/Industrial" General Plan land use designation and the "Landmark Commercial" zoning designation; therefore, the use was anticipated for the site, and was reflected in the buildout projections evaluated in the General Plan EIR.[5] The proposed project does not require the extension of new infrastructure including roadways, or wastewater or water mains. Furthermore, the proposed project would be constructed on a previously developed commercial site and would not displace people or housing. Therefore, no impact would occur, and no mitigation would be required.

6.1.5 PUBLIC SERVICES

At capacity, the proposed project could result in approximately 235 temporary residents (i.e., guests) in San Carlos for up to 188 guest rooms projected by the proposed project and 30 employees. [6] Because the

[2] County of San Mateo, 2016, Williamson Act Parcels, https://data.smcgov.org/Housing-Development/Williamson-Act-Parcels/sq6e-7j5j#revert, accessed May 13, 2022.

[3] California Geologic Survey (CGS), 1987, Mineral Land Classification: Aggregate Materials in the San Francisco – Monterey Bay Area, California Department of Conservation, https://filerequest.conservation.ca.gov/?q=SR_146-2, accessed May 13, 2022.

[4] California Geologic Survey (CGS), 1983, *Mineral Resource Zones and Resource Sectors – San Francisco and San Mateo Counties South San Francisco Bay Production – Consumption Region*, https://filerequest.conservation.ca.gov/?q=SR_146-2, accessed May 13, 2022.

[5] City of San Carlos, October 12, 2009, *San Carlos 2030 General Plan*, http://greatereastsancarlos.org/wp-content/uploads/2011/03/San-Carlos-2030-General-Plan.pdf, accessed May 13, 2022.

[6] Estimate of guests: 1.25 guests per room x 188 rooms = 235 guests

proposed project would result in new transient population on a site that is currently limited commercial uses, the proposed project would represent a more intense use of the site.

Although the relationship is not directly proportional, more intense uses of land typically result in the increased potential for fire and emergency incidents. San Carlos Fire Station 13, which is owned by the City of San Carlos and operated by the Redwood City Fire Department, is the closest fire station to the project site. While the proposed project could potentially increase the number and frequency of calls for service by the RC-SCFD, because the project site would be located approximately 1 mile from Fire Station 13, response times for many calls from the project site would be expected to fall within the RC-SCFD's response time goals. Furthermore, given the project site is surrounded by commercial and light industrial land uses, it is reasonable to expect that the proposed project would not result in a meaningful increase in the amount of crime at the project site that would substantially affect police response times.

Additionally, because the proposed project is a hotel, no permanent residents, including with children, would be assumed to increase with the addition of the proposed project. Therefore, the provision of new or physically altered schools, libraries, and park facilities would not be needed.

The increases in demand for services expected with the transient population would be offset through payment of development fees and annual taxes, a portion of which go toward ongoing provision of and improvements to public services. Accordingly, proposed project impacts related to public services would be less than significant and no mitigation would be required.

6.1.6 RECREATION

Increased demand for existing neighborhood and regional parks or other recreational facilities is typically driven by increases in population. The proposed hotel project is not intended to serve as a permanent residence and would result in temporary residents (hotel guests) in the City of San Carlos; therefore, families with children that would attend the schools and routinely use recreational facilities are not anticipated to reside at the hotel. The proposed project also includes on-site amenities for guests, including a landscaped courtyard with seating and a fountain. Accordingly, development of the proposed project would not result in a significant environmental impact with regards to the City's recreational services; therefore, there would be no impact and no mitigation would be required.

6.1.7 WILDFIRE

The proposed project site is not located in or near a state responsibility area, nor is it located within a very high fire-hazard severity zone.[7] Therefore, construction of the proposed project would have no impact related to wildland fire and no mitigation would be required.

[7] Office of the State Marshall, November 24, 2008, Very High Fire Hazard Severity Zones in LRA, As Recommended by CAL FIRE, https://osfm.fire.ca.gov/media/5987/san_carlos.pdf, accessed May 13, 2022.

6.2 SIGNIFICANT UNAVOIDABLE IMPACTS

Based on the analysis in Chapter 4 of this Draft EIR, the proposed project would not result in any significant and unavoidable impacts.

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 below.

6.3.1 CHANGES IN LAND USE THAT COMMIT FUTURE GENERATIONS

As described in Chapter 3, *Project Description*, of this Draft EIR, the proposed project would develop 2.09 acres of the project site with a hotel. The project site was occupied by the Bayshore Supply business and currently contains three one-story commercial buildings. Because the project site is currently zoned for General Commercial/Industrial use and developed with past commercial uses, construction of the proposed project would not result in a land use change that would commit future generations to uses that are not already prevalent on the project site.

6.3.2 IRREVERSIBLE DAMAGE FROM ENVIRONMENTAL ACCIDENTS

Potential environmental accidents of concern include those that would have adverse effects on the environment or public health due to the nature or quantity of material released during an accident and the receptors exposed to that release. Site preparation and construction activities associated with development of the proposed project would involve some risk for environmental accidents. However, these activities would be monitored as required by local, State, and federal agencies, and would follow professional industry standards for safety and construction. Additionally, the land use proposed by the proposed project is a typical urban use that would not involve activities that are likely to contribute to or be the cause of a significant environmental accident. As a result, the proposed project would not pose a substantial risk of environmental accidents.

6.3.3 LARGE COMMITMENT OF NONRENEWABLE RESOURCES

Consumption of nonrenewable resources includes issues related to increased energy consumption, conversion of agricultural lands, and lost access to mining reserves. The proposed project would require electric service, vehicle fuels, and additional resources for construction. The use of energy resources by vehicles would fluctuate according to the phase of construction and would be temporary. Additionally, the ongoing operation of the proposed project would involve the use of nonrenewable resources. Construction and ongoing maintenance of the proposed project would irreversibly commit some materials

and nonrenewable energy resources. Materials and resources used would include, but are not limited to, nonrenewable and limited resources such as oil, gasoline, sand, gravel, asphalt, and steel. These materials and energy resources would be used for infrastructure development, transportation of people and goods, as well as utilities. During the operational phase of the proposed project (post-construction), the proposed project would create additional energy demands compared to existing conditions and would result in increased transportation energy use. Operational use of energy would include heating, cooling, and ventilation of buildings; water heating; operation of electrical systems, use of on-site equipment and appliances (including gas for cooking); and indoor, outdoor, perimeter, and parking lot lighting. Furthermore, future development would commit other nonrenewable resources such as gravel, asphalt, metals, gasoline, and oil. These materials and energy resources would be used for infrastructure development, transportation of people and goods, and utilities.

However, the proposed project would be required to comply with and implement several measures that would offset or reduce the need for nonrenewable resources. For example, the proposed project includes a rooftop solar system, and is required to comply with all applicable building and design requirements, including those in California Code of Regulations, Title 24 relating to energy conservation. With compliance with Title 24, Part 11, the Green Building Standards Code, or CALGreen, the proposed project is required to reduce water consumption and divert nonhazardous construction and demolition debris.

Overall, while the construction and operation of the proposed project would involve the use of nonrenewable resources, compliance with applicable standards and regulations and the inclusion of energy-conserving project features 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.

6.4 GROWTH INDUCEMENT

Section 15126.2(d) of the CEQA Guidelines requires that an EIR discuss the ways in which a 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 include 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. Not all aspects of growth inducement are negative; rather, negative impacts associated with growth inducement occur only where the growth associated with the project would cause adverse environmental impacts.

Growth-inducing impacts fall into two 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.

The proposed project would not result in direct growth-inducing impacts because it would not involve the creation of significant new off-site transportation or utility infrastructure that would allow or spur growth in the surrounding area. The project site is located in an urbanized area that is already served by

roadways, as well as existing infrastructure. While the proposed project would include utility connections to fully serve the new on-site development, the project site is already located within an area that is served by roadways and utilities and would not extend these facilities to previously unserved areas. The proposed project would not result in the creation of new infrastructure that could be used by other new development in the surrounding area.

The proposed project would not involve direct growth inducement through the construction of a hotel with up to 188 guestrooms. Because the proposed project is a hotel, it would not result in permanent residents to San Carlos or the region.

Development of the proposed project would involve demolition and construction activities that could generate some temporary employment opportunities; however, given the temporary nature of such opportunities, it is unlikely that construction workers would relocate to San Carlos as a result of the proposed project. Thus, the proposed project would not be considered growth-inducing from an employment perspective.

Additionally, any future development in the area of the proposed project would be considered a separate project under CEQA and would undergo its own environmental review under CEQA. Overall, the proposed project would not be considered to have substantial adverse growth-inducing impacts.

7. Organizations and Persons Consulted

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